WAR INDUSTRIES BOARD
BERNARD M. BARUCH, Chairman
EDWIN F. GAY, Chairman of the Division of Planning and Statistics

HISTORY OF PRICES DURING THE WAR
WESLEY C. MITCHELL, Editor in Chief

PRICES OF LUMBER

By

R. C. BRYANT
Industrial Examiner, Forest Service

PUBLISHED IN COOPERATION WITH THE FOREST SERVICE
DEPARTMENT OF AGRICULTURE

WASHINGTON
GOVERNMENT PRINTING OFFICE
1919

Dept of Conservation and Natural Resources

CONTENTS.

	Page.
Introduction	3
The lumber industry:	
Development	5
Importance	6
Products of the lumber industry	7
Domestic use of lumber	10
Lumber production	11
Government consumption of lumber during the war	19
Import trade	21
Export trade	21
Government regulation of the lumber industry during the war	22
Prices and price fixing	24
Conservation measures affecting the lumber industry	35
Export restrictions	44
Import restrictions	48
Lumber price movement	52
General price movement previous to 1913	52
General lumber price movement from 1913 to 1919	54
Movement of actual prices of individual species	66
Appendix:	
Table of weights	82
Tables of index numbers of lumber prices	83
Tables of actual prices of lumber	83
Lumber imports into the United States, 1913–1918	92
Lumber exports from the United States, 1913–1918	93
Maximum Government price lists for lumber:	
Southern yellow pine	95
Longleaf and shortleaf pine	100
Douglas fir	102
New England spruce	106
Pennsylvania hemlock	108
Cypress and tupelo	109

PRICES OF LUMBER.

INTRODUCTION.

This bulletin is one of 50 studies of war-time prices in different industries. These studies aim to make the price quotations gathered by various Government agencies available to those concerned with problems of business readjustment, and to provide a permanent record of the great revolution in prices that accompanied the World War.

Besides the pamphlets devoted to separate industries, the series includes group studies of the prices of foods, clothing, building materials, and chemicals. There is also a set of international comparisons of price fluctuations, a special record of Government control over prices during the war, and, finally, a general summary of the whole inquiry in which the methods employed are set forth more fully, and in which the leading results from all the bulletins are drawn together for comparison.

A brief account of conditions prevailing in the different industries and data regarding production, stocks, imports, exports, and Government control are given in each of the bulletins, in order that the various factors having a bearing on the course of price fluctuations may be brought out clearly.

The price charts in the bulletins, drawn to uniform scale, show the movement of prices away from the prewar level.

The average actual prices in the 12 months preceding the outbreak of the war (July, 1913, to June, 1914) are treated as equal to 100 and the actual prices in each month or each quarter from January, 1913, to December, 1918, are thrown into the form of relative prices on that scale. Thus, if the sale price of lumber averaged $20 per thousand board feet in the 12 months before the war, and if it fell to $18 in October, 1914, the relative price would be 90; if the price rose to $40 in July, 1918, the relative price would be 200. On this plan, all of the price charts are comparable one with another.

"Index numbers" are provided for those who wish to know not merely the fluctuations of particular commodities but also the general trend of prices in different industries. For the latter purpose a simple average of the prices of commodities sold—some by the pound and some by the ton, some by the quart and some by the bushel—would obviously have little value. Therefore, in making index numbers, each commodity is "weighted" by multiplying the monthly prices from 1913 to 1918 by the amount of the commodity produced in 1917, plus imports. The year 1917 was selected as the weighting year because the tables are intended to reflect war-time conditions, and because 1918 data were unobtainable for many commodities when the bulletins were being written. First, for every commodity included in the computation an estimate was made of the quantity produced in the United States in 1917 plus the quantity imported. Second, the price of the commodity in each month in the

six-year period covered was multiplied by the "weight." Third, the products of the different commodity prices times their weights were added up separately for each month. Finally, the monthly aggregates were turned into relatives on the prewar base; that is, the average aggregate of July, 1913, to June, 1914, was made equal to 100, and all the monthly aggregates were made over on that scale.

It will be seen that the index numbers made on this plan for an industry are strictly comparable with the relative prices for particular commodities shown in the charts. By using these indexes readers may get a clear idea of average price fluctuations in a given branch of business, and may compare fluctuations in one industry with those in others.

In treating the price movement of lumber it was impracticable to consider all kinds of lumber, because of their number and because adequate data for some of them were not available. The general trend of price fluctuation can be learned, however, from "samples," because the same general tendencies are exhibited by nearly all of them. The species included in this bulletin were chosen from among those that represented volume production—such as southern yellow pine, Douglas fir, eastern white pine, eastern hemlock, gum, and chestnut—and those which possessed physical characteristics that made them of special importance in the war program, such as oak, hickory, ash, maple, birch, yellow poplar, and eastern spruce.

The f. o. b. mill price quotations, which begin in the second quarter of 1913, were furnished by the United States Forest Service from quarterly prices reported to it by individual mills: the quotations for eastern spruce were from the Commercial Gazette, Boston, Mass., and those for Douglas fir, from the Bureau of Labor Statistics. These quotations, with the possible exception of those for lumber, such as black walnut and mahogany, which showed tendencies somewhat at variance with other woods, represent the general course which lumber prices followed. Black walnut and mahogany were not considered because of the absence of reliable price data.

In addition to a comparison of the movement of relative lumber prices with the "all commodities" and the "building materials other than lumber" groups, a brief review of the movement of actual prices is given, in order to show the manner in which the various grades of each species responded to similar influences.

Time did not permit an exhaustive study of the lumber price movement either during the six-year period or over several previous decades. Indications point, however, to the existence of a vital relation between the price movement of lumber and the chief source of timber supply, and it is, therefore, of importance that the subject be given further consideration and study in order that the true relation may be established.

Acknowledgment is here made to those lumber manufacturers, lumber association secretaries, and others who have aided by furnishing data or helping in its preparation, and especially to W. Hoyt Weber and to E. H. Frothingham of the United States Forest Service.

THE LUMBER INDUSTRY.

DEVELOPMENT.

Harvesting the products of our forests has from the earliest days formed an important industry in the United States. Soon after the first colonists came to the eastern shores of this continent they began the exploitation of our forest resources, exporting to the mother country and later to other countries hewed timbers, lumber, white pine ship masts, clapboards, rosin, turpentine, tar, and oak staves.

The early operations were conducted in the white pine and hardwood forests of southern New England and in the longleaf pine forests along the Atlantic Coast, from which came the naval stores products then in great demand in Europe.

The early sawmill, often operated in connection with a grist mill, was small and crude, and had a single sash saw run by water power, which turned out a few hundred feet of lumber per day. It was located near tidewater, so that the product could be rafted and towed to local markets or loaded in sailing vessels for movement to domestic and foreign markets.

As the settlements grew in number and pushed back into the interior, the lumber industry also moved back from the coast, usually somewhat in advance of agriculture. The market demand for lumber gradually increased, although the actual quantities produced were, until the middle of the last century, insignificant in comparison with our present output.

Steam power was first used in sawmills in the early fifties, and its introduction was one of the important milestones in the progress of lumber manufacture in this country. During the next decade the first practical power-driven wood-planing machine was installed in a lumber plant at Albany, N. Y. This proved a great boon to the industry, marking the transition from hand to machine work in the manufacture of flooring, interior finish, and other surfaced products.

The rapid development of lumber manufacture began about 1850 when the sash gang saw was introduced into sawmills, thereby increasing the output of the larger mills from a few thousand feet to a maximum of 40,000 feet daily. An added impetus was given to production by the introduction of the circular saw in 1860. Band saws came into use in 1889, and while they did not increase mill output, they raised the quality of the product and effected a marked saving in raw material because of the smaller kerf. The increased output made possible by the use of the gang and circular saws necessitated improved methods of handling lumber in the mill, and mechanical devices were devised to supplant hand labor.

The evolution of the lumber industry is the same in nearly every region. It starts with the small mill, supplying local demands. Later large mills which supply outside markets are added, and these operate so long as extensive bodies of virgin timber are available for exploitation. The large mills then give way to small mills which operate on scattered or small bodies of virgin timber left by the large mills or on second-growth stands not profitable for the large mills to cut. New England has passed through these various stages and most of her present mills are of small capacity. The industry

will always be important in this region, however, because in some States, such as Maine, large areas are adapted chiefly for timber-growing purposes. The South is rapidly passing into the small-mill stage as the large areas of virgin timber are being cut out. The West is now reaching the height of the development of the large mill, and it will be many years before the small mill will be an important factor in the situation in that region, although even now some are operating on small bodies of timber.

Logging and lumber manufacture by their very nature constitute a pioneer industry. Less than 50 per cent of the cubic volume of the tree finds its way into the market as a finished product, and the prices of lumber have never been such that the industry could transport raw material for long distances to the manufacturing plant. It is rarely the case, therefore, that the manufacturing plant is located at a great distance from the forest, unless the timber is of such a character that it can be transported by water or unless the country is provided with streams suitable for log driving.

The lumber industry, to a greater extent than any other of our large industries, is individualistic in character, with only a few large groups of interests in any way comparable to those found in the steel and meat-packing industries. The reasons for this are many. The manufacture of lumber has become a great industry within the lifetime of men now living, many of whom are still in active control of the business. The large operations have usually grown from small beginnings under the direct eye of the owners, and the feeling of pride in the personal conduct of a given operation outweighs the benefits which might be gained by a merging of interests into large organizations. Some attempts have been made to consolidate large interests, but the difficulties of a satisfactory adjustment of consolidation values and of the establishment of an organization not in conflct with the laws of the various States and of the Nation have appeared almost insurmountable. The tendency has been rather to form individual operating companies with sufficient capital to control adequate amounts of raw material and to operate on independent competitive lines.

IMPORTANCE.

The lumber industry at the time of the 1909 census ranked third among the industries of the United States from the standpoint of the value of products produced, being outranked only by the packing houses and the foundries and machine shops. The value of products manufactured in 1909 was $1,156,128,747. While production has decreased since 1909, the value of the products has increased, and, although there are no recent statistics available, it is believed that the relative rank of the lumber industry has not greatly changed.

From the standpoint of wage earners employed, the lumber industry ranked first, employing 695,019 individuals, 30 per cent more than the foundry and machine shop industry, which ranked second.

There are approximately 48,000 separate establishments in the United States engaged in the manufacture of lumber. These plants have a daily capacity, one shift, ranging from a few thousand board feet to 500,000 feet. The average capacity of the larger mills ranges from 50,000 board feet daily to the maximum figure given. On the

basis of the returns made to the United States Forest Service for 1917, in which year 19,072 active sawmills reported their cut, the larger mills, comprising only 5½ per cent of the total number, cut 71 per cent of the total lumber reported, leaving the output of the small mills only 29 per cent of the total cut. The importance of the large mill is thus strikingly illustrated. The regional location of the large mills is identical with the maximum cuts of lumber. Thus 52 per cent of the large mills are in the Southern States, 21 per cent in the Pacific Coast States, 12 per cent in the Lake States, 8 per cent in the Central States, 4 per cent in the Rocky Mountain States, and 3 per cent in the Northeastern States. The preponderance of small mills is found chiefly in those States which were earliest settled and whose virgin timber resources are largely exhausted. Thus, of the total number of small mills, 10 per cent were reported from New York, 9 per cent from North Carolina, 4 per cent from Virginia, and only 1 per cent from the State of Washington.

The lumber industry appeals to a wide range of capital and therefore represents all gradations of investment from concerns having only a few thousand dollars capital to those having many millions. The major part of the capital employed in the lumber industry is invested in raw material, which previous to 1914 was probably not less than $6,000,000,000. To this must be added the value of logging equipment, manufacturing plant, and plant accessories, which totals at least $1,000,000,000 additional.

PRODUCTS OF THE LUMBER INDUSTRY.

CHARACTER.

The sawed products of the lumber industry comprise timbers, lumber, lath, shingles, shooks, and finished stock such as flooring, ceiling, siding, casing, base, and other remanufactured articles. The activities of a given lumber company may include the production of only a portion of these products, depending on the character of the plant, the size and kind of timber available, and the class of trade which the individual firm serves. Logs of relatively large size are essential to the manufacture of timbers, and the demand for this class of material is chiefly in coniferous woods. Lath production is confined chiefly to mills producing softwood lumber for general construction purposes. Limited quantities of lath are produced from suitable hardwoods, but they are not an important factor in the market. Shingles may be produced in connection with sawmilling operations, but the bulk of the output of the country is manufactured in separate mills in the Northwest from western red cedar, which is preferred for this purpose. Shooks, when produced at a sawmill plant, are usually a by-product in the manufacture of lumber, being produced from "shorts" and low-grade lumber, and their manufacture is largely confined to those plants which have a box factory operated in connection with a planing mill.

Finished stock produced at the sawmill plant is largely confined to softwoods. Nearly every large softwood sawmill now has a planing mill in connection with it, in which rough lumber is remanufactured into patterns suitable for the general building trade. Formerly this branch of the industry was concentrated in plants located at the large consuming centers. The change was brought about

because of the closer utilization possible through remanufacture at the source of raw material, because of the added profit from the sale of a finished product, and because remanufacture reduced the shipping weight of lumber and produced a marked saving in the transportation expense.

Hardwoods to a greater degree than softwoods are shipped in the rough to the buyer because hardwood lumber is used for a great variety of purposes and is remanufactured in special plants, such as vehicle, furniture, woodenware, and novelty factories. It is not practicable or desirable, therefore, to attempt extensive remanufacture at the sawmill.

FORM.

Lumber manufacturing plants may be roughly grouped into two classes, "timber mills" and "board mills." Timber mills are those which have plant facilities for manufacturing and which normally do manufacture a relatively high per cent of their product into heavy dimension and large timbers. Board mills, on the other hand, produce chiefly 1-inch stock suitable for general construction purposes.

The production of heavy timbers demands stumpage of large size and possessing special qualities. The manufacturing plant also requires special facilities for handling large sizes. A board mill, on the other hand, may operate successfully in almost any class of timber, provided the general conditions are favorable.

Timber mills may produce 1-inch and 2-inch stock as side lines, a necessary feature in close utilization of the timber. On the other hand, it is seldom feasible for board mills to undertake the manufacture of large or long timbers, because of the unsuitability of their machinery for this class of work.

SIZE.

The dimensions of sawed material other than timbers are now standardized in all parts of the country in conformity with trade customs and demands. This has been brought about largely through the various associations representing lumber manufacturers, each association composed of operators who manufacture some specific species or groups of species, or who represent some section in which all groups of lumbermen have business interests more or less in common.

Grading and inspection rules are prepared by these associations, and their enforcement is secured by means of a paid corps of inspectors, who visit the mills and who by inspection and instruction bring about a uniformity of grading and classification of product. This function is an extremely important one, both to the manufacturer and the consuming public, since a multitude of sizes and a complexity of grades would lead to confusion in the merchandising of the product and to great inconvenience to the consumers.

Standard thickness in lumber products in softwood is based not on rough stock, but on the dry, surfaced product. It is impracticable to manufacture lumber in the rough in even thickness because of the mechanical problems involved and of the variation in shrinkage while drying. The practice has grown up, therefore, of expressing standard sizes in terms of dry, surfaced product, the boards in the

rough being of such dimensions that the finished product can be manufactured from them.

Through a gradual process of evolution the trade custom has grown up of making standards scant in width and thickness. Thus the standard thickness of a 1-inch southern yellow-pine board is thirteen-sixteenths inch when surfaced on one or both sides, and the thickness of standard 2-inch dimension surfaced on one side is $1\frac{5}{8}$ inches. The rough pieces from which these thicknesses are produced may or may not have been 1 and 2 inches, respectively, in the rough, but in order to be standard in the rough they must be capable of being reworked into the dimensions mentioned. Similar standards exist for all softwoods, although there may be some slight difference in the actual dimension used. Hardwoods are often cut full size because they are used for a great variety of general manufacturing purposes and the need for full sizes is greater.

The standard widths in softwoods vary by even widths from 3 inches and 4 inches up to 12 inches, although some of the better grades are produced in greater widths. Scant widths are permitted, a 12-inch board surfaced on one or two edges to $11\frac{1}{2}$ inches being standard. In the narrower widths the scantness is less, the differences allowed being specifically stated for each width. In remanufactured products like flooring the standard 4-inch flooring has a "laying" face of $3\frac{1}{4}$ inches, one-fourth inch of width being required for the tongue and the remaining one-half inch being allowed for dressing. The measurement of the product is based on the standard rough width from which the finished material is manufactured, and therefore the buyer in purchasing 1,000 board feet of $3\frac{1}{4}$-inch flooring does not receive a quantity which will cover 1,000 square feet of area, but rather flooring which will cover 812 square feet.

Hardwood lumber is usually manufactured in both odd-inch and even-inch widths because the greater part of the product is remanufactured in factories which use a great variety of sizes to which all widths are well adapted. A marked saving in product is therefore effected.

Standard lengths in softwood lumber with some exceptions range by even feet from 4 to 24 feet, inclusive. Scant lengths are not permitted, since uniform lengths are demanded for most commercial purposes. A saving in material would be effected by the establishment of odd-foot lengths in many forms of construction lumber, but this is not yet sanctioned by the buying trade, since it would involve carrying a greater number of lengths than is now customary.

GRADES.

Lumber products are classified and assorted on the basis of quality in accordance with "grading" or "inspection" rules which are published by the various lumber-trade associations. Many of the softwoods and some of the hardwoods are graded by separate and distinct rules designed to take into account the peculiarities of each wood and the purposes for which it is to be used.[1]

[1] Among the more important species for which specific grading rules have been provided are southern yellow pine, North Carolina pine, cypress, Douglas fir, eastern white pine, and yellow poplar. Many hardwoods are graded by a uniform set of rules.

DOMESTIC USE OF LUMBER.

The building trade is one of the largest consumers of lumber. Vast quantities are also used in the manufacture of wooden containers, furniture, freight cars, vehicles, wooden ware and novelties, agricultural implements, and for a host of other purposes.

The various wood-using industries of this country normally consume about 60 per cent of our entire lumber cut. Seventy per cent of this 60 per cent of the total is softwoods, southern yellow pine, Douglas fir, and the white pines comprising 57 per cent and the remaining softwoods 13 per cent.

Planing-mill products which are used in the building trades consume 41 per cent of the above three species and 48 per cent of all coniferous species which enter into the manufacture of wooden products. Of the total volume entering into planing-mill products softwoods furnish 88 per cent, which shows the commanding importance of this class of material in our building program.

Southern yellow pine ranks first among our building woods, furnishing 47 per cent of the planing-mill requirements. Douglas fir is second with 15 per cent, and is rapidly coming into more extensive use for this purpose.

The chief use of softwoods other than for building purposes is in the manufacture of boxes and crates, which ranks second among wood-using industries, consuming more than four and one-half billion feet. For this purpose coniferous woods, especially the white pines, sugar pine, western yellow pine, balsam fir, hemlock, spruce, and southern yellow pines are well adapted. Ease of working, lightness, and color are among the qualities desired for certain kinds of containers, and for these the white pines, spruce, and sugar pine are well adapted. Where weight and color are not so essential, the yellow pines are much used because of their relative cheapness. The southern yellow pines, hemlock, and the white pines furnish 48 per cent of our box material, all coniferous woods furnishing 70 per cent of the total. Softwoods therefore occupy a commanding position in this field.

Other important uses for softwoods are for car construction, agricultural implements, silos and tanks, ship and boat building, paving materials, matches and toothpicks, shade and map rollers, woodenware, machine construction, trunks, and wood pipe.

Hardwoods are used for a great variety of purposes, chief among which are furniture, for which oak furnishes 45 per cent of the requirements; vehicle and vehicle parts, for which oak and hickory are used in nearly equal quantities, both furnishing 61 per cent of the requirements; woodenware, novelties, etc., for which ash, basswood, birch, maple, chestnut, beech, and elm are most extensively used, and furnish 60 per cent of the total; agricultural implements, for which oak, maple, cottonwood, yellow poplar, red gum, ash, and hickory furnish 55 per cent.

The chief demand for softwoods is centered in a few industries which demand more or less uniformity in product, while that for hardwoods is distributed over a large number of unrelated industries, the requirements of which are not at all uniform. Hardwood manufacture has, therefore, developed along more specialized lines than soft-

woods, and the standards of quality and sizes produced from these two classes of wood bear but little relation to each other.[1]

LUMBER PRODUCTION.

CENTERS OF PRODUCTION.

The center of lumber production for many years was in the Northeastern States, which originally possessed extensive forests of white pine, eastern spruce, hemlock, and hardwoods in close proximity to the large consuming districts. During the first half of the nineteenth century white pine was the softwood chiefly in demand because of its superior qualities for all general purposes. It was not until 1845 that spruce, the wood of the region now regarded as most valuable, secured recognition in the markets. In the latter part of the nineteenth century the white pine supply became greatly depleted and spruce has since occupied first place among softwoods because of its relative abundance, its easy working qualities as lumber, and its high value as a pulp material.

As early as 1850 the lumber cut of the Northeastern States was approximately 2.7 billion feet, nearly three-fifths of the total lumber cut of the United States. In 1860 it rose to 3 billion feet, in 1870 to 4.8 billion feet, and in 1910 to 5.5 billion feet. Since 1910 it has rapidly decreased.

An increase in the lumber requirements of the country and the rapid exhaustion of choice, available stumpage in the Northeast caused lumbermen to seek new fields for exploitation. The vast white-pine forests of the Lake States attracted the attention of eastern operators as early as 1840, because white pine was the wood then in most favor in the markets and the supply was strategically located with reference to the large consuming regions. Tributary as the forests were to the Great Lakes, the lumber product could be moved by water to important distributing points, such as Chicago, Detroit Toledo, Cleveland, and Buffalo, and by means of the Erie Canal to the markets in New York State and the East. In 1850 the cut of this region was approximately 300 million feet. It had risen to more than 1 billion feet by 1860 and to a maximum in excess of 8.5 billion feet in 1900. Since 1900 the cut has rapidly declined, and in 1917 it was approximately 3.5 billion feet. The output of the early periods was chiefly white pine. Only during the last two decades have hemlock and the hardwoods formed an important part of the cut. Today, white pine comprises less than one-third of the lumber output of the Lake States and the volume is decreasing annually.

The lumber industry in the southern pineries tributary to the Atlantic seaboard and the Gulf of Mexico was early developed on a small scale to meet home demands. Early in the nineteenth century the lumbermen in the Carolinas and Virginia developed a trade with consuming centers such as Norfolk, Charleston, Baltimore, Washington, and Philadelphia; but farther south in the interior region the market was chiefly local, the lumber being cut and used in the construction and maintenance of the small southern towns and for plantation buildings. The reconstruction of the South after the Civil War gave some impetus to the lumber industry, but it was not until

[1] For more detailed data on the uses of wood, see "Lumber Used in Manufacture of Wooden Products," by J. C. Nellis, U. S. Dept. of Agriculture Bulletin No. 605 (Forest Service), Washington, Feb. 27, 1917.

the late seventies and early eighties that northern capital was attracted to the southern pineries as a field for development. At this time eastern and Lake States' operators began to seek new fields for operation and many were attracted to the vast interior and Gulf forests of the South. Extensive purchases of stumpage were made in the early eighties and manufacturing plants sprang up in many places.

Previous to 1890 southern pine lumber in large quantities did not reach the territory north of the Ohio and Potomac Rivers and west of the Mississippi River because of the strong competition from the white-pine product of the Lake States. The white pine was in high favor in the prairie region because of its easy working qualities. Southern railroads which had outlets into northern regions purchased some car and bridge materials for northern use, but southern pine found very little favor as a general building material. The construction of the World's Fair buildings in Chicago during the early nineties afforded the first large northern market for southern yellow pine, its use being due to its relative cheapness. A great impetus was given to the yellow-pine trade in the Chicago and other northern markets by this development; the demand for the product rapidly increased; and it is now marketed over a wide territory extending from the Rocky Mountains eastward to the Atlantic seaboard.

The hardwood forests of the Central States were cut to a limited extent a few years previous to the Civil War, but extensive operations began after its close, when the population of the Middle West increased more rapidly. The cutting of the southern hardwood forests was coincident with the growth of the southern pine operations.

Extensive development of the lumber industry began at a much later date on the Pacific coast than in the South because of the relatively small local demands and the lack of through rail connections to the eastern markets. The early development met local needs and supplied the limited domestic and foreign water trade. The lumber industry of the Northwest did not have a potential national character until the construction of the northern transcontinental railroads during the eighties opened up a new market in the prairie region. For some years after this the costly freight haul across the Rocky Mountains prevented the development of an extensive eastern trade, and it was only after the establishment in February, 1893, of a 40-cent freight rate from the coast to St. Paul that the industry began to develop rapidly.

During the early years of its introduction in the Middle West Douglas fir met with strong competition from white pine and hemlock produced in the Lake States. Later southern yellow pine entered the markets of the prairie regions as a strong competitor of all of these woods and to-day it holds the commanding position that white pine occupied some years ago. Douglas fir is now rapidly gaining ground and promises to preempt within a decade much of the more distant domestic territory in which southern pine competition is now active.

The industry in the Northwest is growing rapidly, the volume of lumber produced in the three Pacific Coast States having risen from approximately 3 billion feet in 1899 to more than 8.5 billion feet in 1917. The Northwest is now the last great reservoir of undeveloped timber wealth in this country.

The general trend of lumber production in the four regions mentioned for the period 1850 to 1917, inclusive, is shown in figure 1.[1]

SEASONAL CHARACTER.

Lumber manufacture is more or less seasonal in character and exhibits the same general tendencies from year to year without regard to the volume produced. Softwood production is distinctly seasonal in character, while hardwood production is more evenly distributed throughout the year.

Statistics indicate that the minimum production of softwood usually occurs during the last months of the year, November and December, sometimes running into January of the next year. Then production gradually increases until the peak is reached during the period from May to August. This tendency is exhibited not only by softwoods as a whole, but also by each individual species, although it is more pronounced in some sections than in others. It is largely due to the climatic conditions in the regions where coniferous forests abound, which are least favorable to sawmill work in the fall and winter months; to the seasonal demand for lumber on the part of the largest consumers of this class of wood, namely, the building trades and the railroads; to special conditions created in some sections by competition with other industries for labor during certain seasons of the year; and to the tendency of labor to work part time only during holiday seasons. Production is also subject to a marked decrease during a short period before and after the Fourth of July, the volume at this time sometimes falling below that for any like period in December.

In the coniferous forests of New England, the Lake States, the Rocky Mountain region, and the Inland Empire, logging is done chiefly in the late summer, fall, and winter, although the tendency in recent years, with the increased use of logging railroads, has been to log for a longer period during the year.

Seasonal production is less pronounced in the southern pine region and in the Northwest, because the climatic conditions are more favorable for continuous operation and the almost universal use of railway transport insures a continuous supply of logs throughout the year. The general tendency even in these sections, however, is for a gradual increase in output from the first of the year until July or August and then a gradual decline.

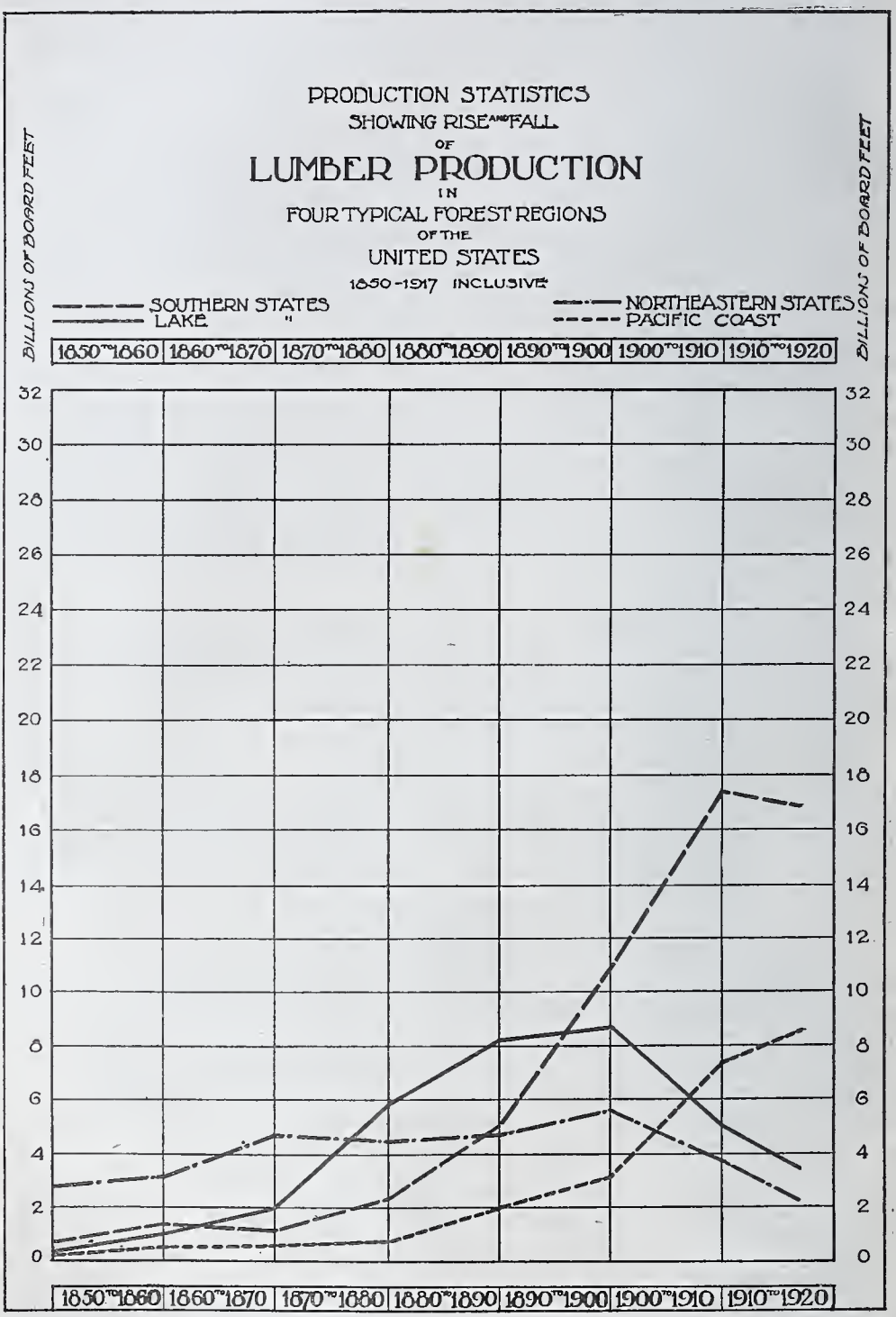
The market demand for softwoods is seasonal, since they are used chiefly for general construction purposes. Buying is slack at the close of the year, because the building trade is not brisk and retail yards do not wish to buy stock which must be held for considerable periods. The lumber market normally becomes active during the latter part of January or early part of February when dealers stock up to meet spring building demands. Stocks of lumber at the mills usually decline at this time because production does

[1] The data for the years 1850 to 1908 are taken from "The Lumber Production of the United States," by R. S. Kellogg, in the Official Report, Eighth Annual Convention, Chicago, 1910, National Lumber Manufacturers' Association. The data for the years 1909 to 1917, inclusive, are from United States Forest Service statistics of annual cut.

The States included in the various sections mentioned are: Northeastern States—New England, New York, Pennsylvania, New Jersey, and Delaware; Lake States—Michigan, Wisconsin, and Minnesota; Southern States—Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, and Texas; Pacific States—California, Oregon, and Washington.

All species cut in these States are included. The leading species in the Northeastern States are eastern spruce and eastern hemlock; in the Lake States, eastern white pine, beech, birch, and maple; in the Southern States, southern yellow pine, and oak, gum, and other hardwoods; in the Pacific States, Douglas fir.

not keep pace with shipments. The demands for lumber lessen during the late spring, and at this time production often exceeds shipments. In midsummer buying by retail yards begins in anticipation of fall trade, but normally a surplus of lumber is gradually accumulated at the mills during the latter part of the year, and is available for market at the beginning of the new year.



Production statistics showing the rise and fall of lumber production in four typical forest regions of the United States, 1850–1917 inclusive: Southern States, Lake States, Northeastern States, Pacific Coast.

Hardwood production displays a much less marked seasonal tendency than softwood production. The reason for this is that the major part of the hardwood lumber is cut in the Southern States where, even though logging conditions may be unfavorable at certain seasons, it is possible to accumulate a surplus of logs during the favorable periods, which enables the mills to run almost continuously. Market demands are also more stable in hardwoods than in softwoods because of the difference in use. Hardwoods are consumed largely by the various wood-using industries, whose demands are fairly constant throughout the year as compared with the seasonal use of softwoods for building purposes.

Slight seasonal variations are evident in hardwood production, and appear to be uniform year after year. Production is usually at the low point during the month of December, gradually increasing until the peak is reached in April or May, sometimes as early as March. The constancy of this tendency for the years 1913 to 1918, inclusive, is shown by the hardwood lumber cut reported by the National Lumber Manufacturers' Association. The peak of production was reached in May, 1913, in April, 1914, in April, 1915, in March, 1916, in April, 1917, and in March, 1918. This marked uniformity is undoubtedly due chiefly to the labor situation. Hardwood mills are dependent to a considerable extent on labor which, at certain periods of the year, is engaged in agricultural pursuits and follows lumbering during the slack agricultural season. The supply of labor is at its maximum early in the year before agricultural pursuits are active. For a short period during the summer after crops are "laid by" and before harvesting commences this labor is usually available for lumbering. The increase in production noted during the months of August, 1913, September, 1915 and 1916, and October, 1917, is probably due in part to this temporary return of labor to the lumber industry. Production does not respond so readily to the surplus of labor available in the late fall and early winter, because the weather conditions are more unfavorable, the log supply is often low, and mills are being overhauled.

Shipments as a rule show a uniform movement throughout the year, fluctuating less than production. During the first half of the year shipments are usually less than production because production is at its maximum; during the latter half of the year the condition is reversed. The period at which shipments begin to exceed production is remarkably uniform over a period of years. The transition takes place about midyear. It occurred in July, 1913, in September, 1914 (although June and July shipments were nearly equal to production), in September, 1915, in August, 1916, in June, 1917, and in June, 1918. It is necessary for mills to accumulate stocks during the early months of the year because hardwoods air-season slowly at this time and the normal volume of shipments can not be maintained unless relatively large stocks are carried.

Several marked differences are to be noted between softwood and hardwood production and shipments. The maximum softwood production is during the summer months, while the maximum for hardwoods occurs early in the year, a decline setting in by midsummer. On the other hand, shipments of softwoods are usually in excess of production during the early part of the year, and of hardwoods during the latter part. Stock accumulations in softwoods, therefore,

are during the latter half and in hardwoods during the first half of the year.

ANNUAL CUT.

The annual lumber production as computed by the United States Forest Service for the years 1913 to 1917, inclusive, and the estimated production for 1918 are shown in Table 1 and the production by States in Table 2.

TABLE 1.—LUMBER CUT OF THE UNITED STATES.[1]

Kind of wood	1913	1914	1915	1916	1917	1918
	Mft. b. m.	*Mft. b. m.*	*Mft. b. m.*	*Mft. b. m.*	*Mft. b. m.*	*Mft. b. m.*
Total	[2] 38,387,009	[2] 37,346,023	[2] 37,011,656	[3] 39,807,251	[3] 35,831,000	[4] 32,925,000
Yellow pine	14,839,363	14,472,804	14,700,000	15,655,000	13,539,000	12,500,000
Douglas fir	5,556,096	4,763,693	4,431,249	5,416,000	5,595,000	5,300,000
Oak	3,211,718	3,278,908	2,970,000	3,300,000	2,250,000	2,000,000
White pine	2,568,636	2,632,587	2,700,000	2,700,000	2,250,000	2,000,000
Hemlock	2,319,982	2,165,728	2,275,000	2,350,000	2,200,000	2,000,000
Western yellow pine	1,258,528	1,327,365	1,293,985	1,690,000	1,960,000	1,250,000
Spruce	1,046,816	1,245,614	1,400,000	1,250,000	1,125,000	1,600,000
Cypress	1,097,247	1,013,013	1,100,000	1,000,000	950,000	350,000
Maple	901,487	909,743	900,000	975,000	360,000	800,000
Gum, red and sap	772,514	675,380	655,000	800,000	788,000	750,000
Yellow poplar	620,176	519,221	464,000	560,000	350,000	325,000
Chestnut	505,802	540,591	490,000	535,000	415,000	390,000
Redwood	510,271	535,199	420,294	490,850	487,000	425,000
Larch	395,273	358,561	375,000	455,000	360,000	220,000
Birch	378,739	430,667	415,000	450,000	415,000	400,000
Cedar	358,444	499,903	420,000	410,000	265,000	225,000
Beech	365,501	376,464	360,000	360,000	296,000	250,000
Tupelo	120,420	124,480	170,000	275,000	265,000	200,000
Basswood	257,102	264,656	160,000	275,000	203,000	200,000
Elm	214,532	214,294	210,000	240,000	205,000	195,000
Ash	207,816	189,499	190,000	210,000	175,000	175,000
Cottonwood	208,938	195,198	180,000	200,000	190,000	175,000
White fir	88,109	112,627	125,048	190,000	218,000	185,000
Sugar pine	149,926	136,159	117,701	169,250	132,000	125,000
Hickory	162,980	116,113	100,000	125,000	95,000	95,000
Balsam fir	93,752	125,212	100,000	125,000	90,000	80,000
Walnut	40,565	25,573	90,000	90,000	62,000	120,000
Sycamore	30,804	22,773	25,000	40,000	32,000	30,000
Lodgepole pine	20,106	18,374	26,486	30,800	11,000	10,000
All other kinds	85,368	55,624	47,893	40,351	56,000	50,000

[1] From data compiled by the United States Forest Service.
[2] Reported total production by kinds of wood.
[3] Computed total production by kinds of wood.
[4] Estimated total production by kinds of wood.

During the period covered by this bulletin, the State of Washington produced annually the largest amount of lumber, with the exception of 1914, when the production in Louisiana was slightly higher. Louisiana has held second place each year, with the exception above noted. Mississippi occupied third place until 1917, when its cut was surpassed by that of Oregon.

Although southern yellow pine continues to furnish a large proportion of the total cut of sawed lumber, a marked decline has taken place since 1916, the year of the maximum production. Douglas fir shows a slight decrease.

Oak held third place during the years 1913 to 1916, inclusive, and was tied for third place with white pine in 1917. It is one of the most important hardwoods marketed in this country, both in volume and usefulness.

White pine for the first four years of the period occupied fourth place in volume and tied oak for third place in 1917. The white pine cut in the Lake States is on the decrease, but production of western white pine in the Inland Empire during the last few years has tended to maintain a fairly even volume.

TABLE 2.—TOTAL NUMBER OF ACTIVE SAWMILLS REPORTING AND QUANTITY OF LUMBER REPORTED OR COMPUTED BY STATES, 1913-1918.

	1913 (21,668 mills).	1914 (27,506 mills).	1915 (29,951 mills).[1]	1916 (30,081 mills).[2]	1917 (24,815 mills).[2]	1918 (22,546 mills).[2]
	Mft. b. m.	*Mft. b. m.*	*Mft. b. m.*	*Mft. b. m.*	*Mft. b. m.*	*Mft. b. m.*
Total	[3] 28,387,009	[3] 37,346,023	[3] 37,011,656	[3] 39,807,251	[3] 35,831,239	31,890,494
Washington	4,592,053	3,946,189	3,950,000	4,494,000	4,570,000	4,603,123
Louisiana	4,161,560	3,956,434	3,900,000	4,200,000	4,210,000	3,450,000
Mississippi	2,610,581	2,280,966	2,300,000	2,730,000	2,125,000	1,935,000
Oregon	2,098,467	1,817,875	1,690,000	2,222,000	2,585,000	2,710,250
North Carolina	1,957,258	2,227,854	2,090,000	2,100,000	1,460,000	1,240,000
Texas	2,081,471	1,554,005	1,750,000	2,100,000	1,735,000	1,350,000
Arkansas	1,911,647	1,796,780	1,800,000	1,910,000	1,765,000	1,470,000
Alabama	1,523,936	1,494,732	1,500,000	1,720,000	1,555,000	1,270,000
Wisconsin	1,493,353	1,394,001	1,210,000	1,600,000	1,385,000	1,275,000
Florida	1,055,047	1,073,821	1,140,000	1,425,000	1,230,000	950,000
California	1,183,380	1,303,183	[4] 1,130,000	[4] 1,420,000	[4] 1,417,068	[4] 1,277,084
Virginia	1,273,953	1,488,070	1,500,000	1,335,000	1,060,000	855,000
Michigan	1,222,983	1,214,435	1,100,000	1,230,000	1,065,000	940,000
West Virginia	1,249,559	1,118,480	1,100,000	1,220,000	930,000	720,000
Minnesota	1,149,704	1,312,230	1,100,000	1,220,000	1,075,000	1,005,000
Georgia	844,284	1,026,491	1,000,000	1,000,000	740,000	515,000
Maine	834,673	992,594	1,000,000	935,000	770,000	650,000
South Carolina	752,184	701,540	800,000	857,000	745,000	545,000
Idaho	652,616	763,508	777,000	849,600	760,000	802,729
Pennsylvania	781,547	864,710	950,000	750,000	565,000	530,000
Tennessee	872,341	885,035	800,000	700,000	[2] 630,000	630,000
Kentucky	541,531	596,392	560,000	525,000	360,000	340,000
New York	457,720	486,195	475,000	400,000	360,000	335,000
New Hampshire	309,424	482,741	500,000	385,000	290,000	350,000
Montana	357,974	317,842	328,000	383,900	350,000	340,000
Ohio	414,943	286,063	400,000	280,000	225,000	235,000
Indiana	332,993	298,571	350,000	270,000	240,000	250,000
Missouri	416,608	370,571	350,000	260,000	275,000	273,000
Oklahoma	140,284	200,594	230,000	240,000	240,000	195,000
Massachusetts	224,580	143,094	250,000	210,000	155,000	175,000
Vermont	194,647	249,608	260,000	200,000	170,000	160,000
Arizona	77,363	78,667	75,915	93,270	79,022	83,661
New Mexico	65,818	57,167	65,787	91,600	93,000	88,915
Maryland	140,469	162,097	165,000	90,237	68,000	71,000
Colorado	74,602	102,117	74,500	77,580	70,000	56,882
Connecticut	93,730	81,883	90,000	75,000	66,000	64,000
Illinois	102,902	66,227	110,000	60,000	45,000	42,000
New Jersey	27,248	48,748	45,000	40,000	25,000	19,500
South Dakota	19,103	18,744	22,562	29,650	29,015	29,533
Iowa	21,676	11,443	35,000	20,000	13,436	14,200
Wyoming	12,940	11,852	17,000	18,495	8,700	7,501
Rhode Island	14,984	15,902	15,902	15,000	10,646	13,100
Delaware	18,039	25,517	25,000	12,000	8,500	6,000
Utah	5,403	8,680	10,892	9,385	8,567	9,815
Kansas				534	4,255	[7] 8,401
All other States	[5] 19,461	[5] 15,672	[6]			

[1] Custom mills excluded.
[2] Figures shown are computed totals.
[3] Mills cutting less than 50,000 feet per year excluded.
[4] Includes Nevada.
[5] Includes Kansas, Nebraska, and Nevada.
[6] Kansas and Nebraska mills reported less than 50,000 feet each, and these States are therefore omitted.
[7] Includes Nebraska.

The importance of softwoods in our lumber cut is shown by the fact that during the last 6 years 7 of the first 10 woods in volume production are conifers. In 1917 these 10 species furnished 87 per cent of the total lumber cut, the 7 coniferous woods furnishing 77 per cent of the total.

STOCKS ON HAND AT MILLS.

Lumber manufacturing plants in this country may be grouped into two general classes, namely, stock mills and order mills. The former accumulate large stocks of standard construction sizes in advance of specific orders; the latter carry low stocks and cut their products to fill orders.

Stock mills largely supply the general retail trade, whose requirements as to sizes are practically standardized. It is, therefore, practicable to accumulate stock in advance of sales with the assurance that it can be moved. Further, general retail demands are seasonal and varied, and many of the lower grades are air-dried, so that delay would ensue in handling a large volume of business unless a surplus were accumulated. The quantity held at the mills varies greatly. It is not uncommon to find mills carrying 20 per cent or more of their annual cut. Stock accumulation is common in New England, the Lake States, the Inland Empire, California, the cypress region, that part of the southern yellow pine territory west of the Mississippi River, and the hardwood belt. In New England, the Lake States, California, and the Inland Empire, mills usually do not operate throughout the entire year and must accumulate during the running season sufficient stock to meet their annual trade demands. Cypress lumber is largely air-dried, so that large stocks are necessary to insure a sufficient amount of seasoned material to meet trade requirements. Hardwoods are chiefly air-dried at the sawmills, and since most of them require several months longer than softwoods to reach shipping-dry condition, large stocks must be held, which may or may not be cut on orders.

The so-called order mills are located chiefly in the southern pine region east of the Mississippi River and in the Pacific Northwest. In the Pacific Northwest the number of stock mills is gradually increasing. Order mills cut material for a wide range of trade, including railroad stock, retail yard stock, and material for special bills and export. It is not feasible to accumulate large amounts of stock, since market demands for the particular class on hand might not be strong at the moment. In both of the above regions there are some stock mills, although the general type is the order mill.

The southern pine industry east of the Mississippi River is largely conducted on an order basis because the mills are favorably situated geographically with reference to the exporting points and the northern specialized markets, the demands of which vary from time to time. These mills also plan to conduct their business so that they can shift from domestic to foreign trade or vice versa as price conditions dictate. Since the demands of domestic and foreign markets differ as to form of product, it is not practicable to shift to one market much of the material cut for another. Hence only limited mill stocks are advisable.

Complete data covering stocks on hand at mills are not available, because information of this character is collected only by lumber manufacturers' associations, which do not include all manufacturers of the region. Further, the associations' reports, as a rule, cover only a portion of their membership. Although reliable statistics are not available, it is probable that the stocks held by all mills and distributing yards on January 1 of each year are normally about 15 per cent of the lumber cut of the country for the previous year. Table 3 shows such data as are available regarding stocks on hand at member mills of the various lumber manufacturers' associations.

TABLE 3.—STOCKS OF LUMBER ON HAND AT MILLS.

[M feet b. m.]

	Jan. 1, 1913.	Jan. 1, 1914.	Jan. 1, 1915.	Jan. 1, 1916.	Jan. 1, 1917.	Jan. 1, 1918.	Jan. 1, 1919.
American Hardwood Manufacturers' Association:	*M ft. b. m.*	*M ft. b. m.*	*M ft. b. m.*	*M ft. b. m.*	*M ft. b. m.*	*M ft. b. m.*	*M ft. b. m.*
Hardwoods [1]	.....	.....	.....	.....	.....	153,050	203,067
Softwoods [2]	.....	.....	.....	.....	.....	.....	566
California Sugar & White Pine Association: Softwoods [3]	.....	.....	.....	.....	434,600	350,700	425,237
Michigan Hardwood Manufacturers' Association: [4]							
Hardwoods [1]	139,140	200,823	279,097	257,463	249,606	196,895	181,707
Softwoods [5]	62,341	109,015	153,178	118,396	60,947	81,109	54,295
North Carolina Pine Association: Softwoods [6]	86,452	104,694	116,428	[7] 43,305	[7] 33,586	[7] 19,196	[7 8] 35,778
Northern Hemlock & Hardwood Manufacturers' Association:							
Hardwoods [1]	.....	.....	.....	.....	.....	.....	.....
Softwoods [5]	.....	.....	.....	.....	.....	190,326	163,621
Northern Pine Manufacturers' Association: Softwoods [9]	818,193	786,126	1,013,571	1,076,895	695,133	451,190	497,989
Southern Cypress Manufacturers' Association:							
Softwoods [10]	433,020	495,199	515,838	517,218	454,829	391,981	351,997
Hardwoods [11]	.....	.....	.....	41,408	38,683	45,482	44,362
Southern Pine Association: Softwoods [12]	1,246,515	1,397,539	1,117,021	1,111,068	1,365,343	1,281,621	983,314
West Coast (Washington and Oregon): Softwoods [13]	([14])	([14])	([14])	1,456,481	1,680,006	1,426,225	([14])
Western Pine Manufacturers' Association: Softwoods [15]	677,600	865,000	798,000	791,000	718,000	612,000	862,000
Total	3,463,261	3,958,396	3,993,123	5,116,234	5,730,733	5,239,775	3,803,933

[1] Mixed hardwoods.
[2] Cypress and hemlock.
[3] Chiefly sugar pine and white pine.
[4] Represents approximately 75 per cent of Michigan hardwoods and hemlock.
[5] Hemlock.
[6] North Carolina pine.
[7] Report probably incomplete.
[8] Report for Dec. 1, 1918.
[9] Chiefly white pine and Norway pine; represents bulk of white pine stocks in Minnesota and Wisconsin.
[10] Cypress; represents approximately 60 per cent of all cypress stocks in the region.
[11] Tupelo.
[12] Southern yellow pine.
[13] Represents bulk of stocks in the Inland Empire.
[14] Statistics for Jan. 1, 1913, 1914, 1915, and 1919 are not available.
[15] Idaho white pine, western larch, Douglas fir, western red cedar, western yellow pine.

GOVERNMENT CONSUMPTION OF LUMBER DURING THE WAR.

Modern warfare necessitates the use of vast quantities of lumber. The forests of the United States were called upon to furnish material not only for the armed forces of the United States but also for those of the allied Governments. In addition to the material secured in this country, the United States Army purchased large quantities of standing timber in France, which it converted into the various products needed for military purposes. It also secured some sawed material from other European countries. The amount of this lumber and timber secured from foreign sources is unknown.

Only approximate figures are available for such lumber as was purchased and used in this country by the various Government agencies, because a large part of the material utilized, especially by the War Department and Navy Department, was not purchased as raw material, but in the form of manufactured articles, such as vehicles, implements, boxes and crating, and like products. Also large quantities of lumber were purchased indirectly in the form of boxes which served as containers for subsistence supplies or in the form of crates.

The chief purposes for which lumber was purchased directly by the various Government departments were the following: Airplane and propeller construction; gunstocks and hand guards; artillery wheels; vehicles, animal-drawn and motor; boxes and crating; cantonment, hospital, warehouse, dock, and other building construction; and wooden shipbuilding. The following summary of wood used by the Government for the various purposes specified is not regarded as complete, but represents the best information available at the time this bulletin was prepared:

Army consumption of lumber.

	M board feet.	M board feet.
Airplane construction—		
Spruce (eastern and Sitka)	104,351	
Douglas fir	72,385	
Port Orford cedar	4,513	
		[1] 181,249
Combat propellers—		
Central American mahogany	20,083	
African mahogany	6,930	
Black walnut	10,999	
Cherry	1,006	
Birch	663	
Oak	311	
		39,992
Gunstocks and hand guards [2]		98,000
Artillery wheels [3]		19,000
Vehicles— [4]		
Animal draft	77,000	
Motor	20,000	
		97,000
Boxes and crating [5]		2,000,000
Cantonments, hospitals, warehouses and similar structures [6]		3,000,000
		5,435,241

In addition to the above quantities, a large amount of lumber was used for tool handles and like purposes for which no reliable estimate is available.

Navy consumption of lumber.

The best available data on the use of lumber by the Navy during the war show a total consumption of 121,875,000 board feet of hardwood lumber.

Emergency Fleet Corporation consumption of lumber.

The available data show that the consumption of lumber for boat construction during 1918 was approximately as follows:

Shipbuilding—	M board feet.
Southern yellow pine	355,145
Douglas fir	424,427
Oak	2,214
Locust for treenails	2,142
Other hardwoods	8,300
Total	[7] 792,228

[1] This represents the total amount actually shipped to airplane factories up to Jan. 3, 1919. The number of cants required to produce this material is approximately 100 per cent greater since the yield of aircraft cants in airplane lumber is approximately 50 per cent. There was probably purchased, therefore, approximately 362,000,000 board feet of cants. The above amount includes all spruce from the Northwest, the Appalachians, and New England, with the exception of a relatively small quantity of New England spruce secured direct by the Navy.

[2] Black walnut almost exclusively.

[3] 20 to 25 per cent hickory, 75 to 80 per cent white oak.

[4] 70 per cent oak, hickory, ash, maple, rock elm, and beech; 30 per cent poplar, gum, cottonwood, and longleaf pine.

[5] 75 per cent southern pine, 25 per cent other species, chiefly white pine and birch.

[6] 76 per cent southern yellow pine, 10 per cent Douglas fir, 7 per cent hemlock, 3 per cent spruce, 1 per cent oak, 3 per cent miscellaneous.

[7] In addition to this, 920,000 linear feet of white pine and cypress was used.

Summary of Government consumption of lumber.

Army	5,435,241
Navy	121,875
Emergency Fleet Corporation	792,228
Total	6,349,344

IMPORT TRADE.

Although the United States normally exports large quantities of logs, timbers, boards, planks, and deals, it also imports relatively large quantities of cabinet woods from Central America, the West Indies, and Africa, and general construction lumber from Canada. Canada markets approximately one-fourth of her annual cut in the United States. Our Canadian imports consist largely of white pine from the Georgian Bay district, although spruce from eastern Canada and Douglas fir from western Canada also enter the country in rather large quantities. Since import statistics are not segregated by species, it is not possible to determine the amounts of each.

In 1913 the imports were about one-third of the exports, but in 1918 the imports were the greater because of the continued movement of Canadian lumber into the United States and the great reduction in our exports to Europe and other countries.

Imported lumber is not an important competitive factor in our lumber markets. Cabinet woods are employed for special purposes and the relatively small volume of high-priced hardwoods imported has little influence on native hardwood values. Construction lumber from Canada is sold in competition with similar domestic material, but the effect of this competition is insignificant, except in the sections adjacent to the producing regions, and here it is not regarded as a serious problem. At various times a duty has been placed upon imports of lumber from Canada, but the volume has not been influenced greatly either by the presence or absence of a tariff.

The lumber imports into the United States for the calendar years 1913 to 1918, inclusive, are given in Table 7 (Appendix).

EXPORT TRADE.

Although the United States has been a lumber exporting country since the earliest days of its settlement, the foreign trade has not been large until recent times. Before 1914 the volume of export shipments was on the increase, those for 1913, the maximum year, amounting approximately to three and one-quarter billion feet, or 8.4 per cent of the annual cut of that year. Since the outbreak of the European War our foreign trade has greatly decreased, the volume in 1918 being 35 per cent of that for 1913. The greatest decrease has been in shipments to Europe, the volume of logs and round timber having in 1918 fallen off 83 per cent; of hewed and sawed timbers, 96 per cent; and of boards, planks, and deals, 70 per cent. Shipments of boards, planks, and deals to South America also fell off 39 per cent.

From the standpoint of volume, boards, planks, and deals rank first among our lumber exports, having furnished 80.4 per cent of the total in 1913, hewed and sawed timbers were second with 14.6 per cent, and logs and other round timber third with 5 per cent.

Europe in 1913 received the greater part of our shipments of hewed and sawed timbers, and ranked second in receipts of logs, round timbers, board, planks, and deals. She was also the heaviest purchaser of our wood products, buying 37 per cent; North America (chiefly Canada and Mexico) was second with 30 per cent, and South America (chiefly Argentina and Brazil) third, with 16 per cent. The remainder was distributed throughout Asia, Oceania, and Africa.

The logs and round timbers are chiefly hardwoods, such as hickory, oak, and walnut; the hewed timbers, white pine; the sawed timbers, southern yellow pine (pitch pine) and Douglas fir; and the boards, planks, and deals, southern yellow pine, Douglas fir, eastern spruce, eastern white pine, redwood, gum, oak, and poplar.

In the European markets, American lumber comes into competition with softwoods from Sweden, Norway, Finland, Russia, and Canada and with hardwoods from Austria-Hungary, France, Germany, and southern Russia. The greatest competition is in softwoods, since the hardwoods shipped abroad are generally of superior quality.

Export statistics for the calendar years 1913 to 1918, inclusive, are given in Table 8 (Appendix).

GOVERNMENT REGULATION OF THE LUMBER INDUSTRY DURING THE WAR.

Government control during the war furnishes an interesting chapter in the history of the lumber industry in this country and a short résumé is given here because the reasons for this control and the methods pursued have a bearing on the course of the lumber price movement during 1917 and 1918.

Government regulation operated along several distinct lines, among the more important being price fixing, the promulgation of conservation measures designed to husband the available lumber resources of the country, and determining export and import restrictions. The first two functions were performed by the War Industries Board; the latter two by the War Trade Board. In addition, various regulations which were established with regard to transportation and labor had a direct bearing on the lumber industry.

Between 1914 and the entrance of the United States into the war foreign trade in lumber had largely ceased. The cost of ocean transportation as early as the fall of 1914 had risen to a point which was prohibitive for commercial business, even if bottoms had been available, and the only material moved was that purchased and transported by certain of the belligerent European nations. The lumber industry furnished large quantities of material to manufacturers in this country who had contracts for war materials with foreign governments, but the quantities involved were not sufficient to create any serious problems so far as price or delivery were concerned, and there was therefore no cause for interference on the part of the United States Government.

With the entry of the United States into the war a new situation was presented. Immediately there arose a demand for large quantities of lumber for building cantonments, warehouses, and the like; for the construction of wooden ships, for airplanes, gunstocks, and vehicles, and for countless other purposes.

The necessity for centralized effort in meeting the demands of the military program for lumber was early appreciated. Many Government agencies were concerned with the purchase of material, and it was apparent that endless confusion, keen competition, and excessive prices would result if each branch of the Government acted independently. In April, 1917, plans were developed for the formation of a Subcommittee [1] on Lumber and Forest Products in the Raw Materials Division of the Council of National Defense. This committee became a working body early in May, 1917, and set about formulating plans whereby the Government demands for lumber could be promptly met at reasonable prices. Its early efforts were devoted to collecting and disseminating information about the lumber supplies available in this country and the suitability of lumber for given purposes. It also made suggestions for placing orders so as to secure the most expeditious handling of the business.

The committee soon decided that both time and intermediate profits would be saved if Government agencies placed their orders directly with the mills. It was not possible, however, for the committee to handle the matter successfully because of the lack of knowledge of the class of timber owned by each of the many thousand operators, their facilites and their ability to meet special requirements. Representatives of lumber manufacturers from the various producing sections were therefore called into conference and arrangements were made with them to organize "emergency bureaus" which would act as the authorized distributing agencies for such Government orders as were received by them from Government contracting agencies, on recommendation of the Lumber Committee.

All sawmills in the regions represented by a given emergency bureau were allowed to participate in filling Government requirements upon listing their available stocks and milling capacity with the bureau and upon payment of a fee to meet the running expenses of the organization. Orders were distributed to producers in proportion to their listed milling capacity and available stocks.

These bureaus,[2] with some exception and with some changes in form, continued to function until the close of 1918, and the cooperation extended by them to the Government agencies proved indispensable.

On the creation of the Lumber Section in the War Industries Board in September, 1917, the work of the Lumber Committee of the Council of National Defense was transferred to it. The Lumber Section was given added powers, and not only allocated the requirements of the various Government departments among the different bureaus and enforced the rulings of the Price Fixing Committee of the War

[1] This committee consisted of 13 representative members of the lumber industry and the Forester of the United States Department of Agriculture. Its duties in the beginning were advisory in character.

[2] The bureaus and dates of organization were as follows: Southern Pine Emergency Bureau, May, 1917; North Carolina Pine Emergency Bureau, May, 1917; Georgia-Florida Yellow Pine Emergency Bureau, June, 1917; New England Spruce Emergency Bureau, June 6, 1917; Douglas Fir Emergency Bureau (later reorganized as the Fir Production Board), October, 1917; Northern Hardwood Emergency Bureau, Nov. 24, 1917; Central Pennsylvania Hemlock Bureau, Apr. 6, 1918; Cypress Emergency Bureau (date unknown), 1918. A hardwood emergency bureau was organized early in 1917 and reorganized and enlarged in November, 1917; but it was dissolved in March, 1918, because there was not sufficient business to warrant its continuance. Each of the four bureaus representing yellow-pine interests confined its activity to a specific territory. Thus, the Southern Pine Emergency Bureau covered the general field embraced within the territory of the Southern Pine Association; the North Carolina Pine Emergency Bureau, that field covered by the North Carolina Pine Association; the Georgia-Florida Yellow Pine Emergency Bureau, the field of the Georgia-Florida Sawmill Association; and the Alabama and Mississippi Emergency Bureau comprised a group of small mills in northern Alabama and Mississippi which had no direct affiliation with any trade association.

Industries Board after its organization, but also served as the chief agency of contact between the Government departments and the lumber industry. Its function was not only to make certain that the sawmills were ready to furnish to Government agencies their surplus lumber but also that they were prepared to furnish such special sizes as were required but not ordinarily produced.

The extent of the work performed by the Lumber Section may be judged by the fact that up to November 18, 1918, 200,212 cars of lumber (approximately four billion board feet) had been allocated through its organization. The Lumber Section was abolished on December 31, 1918.

PRICES AND PRICE FIXING.

The chief aim in fixing the prices of lumber was to insure an adequate supply of material for Government purposes at a reasonable price; for it soon became evident that the Government demands for certain classes of softwoods would be so great as to inflate prices unless some form of control were instituted.

SOUTHERN PINE PRICES.

The Lumber Committee of the Council of National Defense entered into an informal agreement on June 13, 1917, with the Southern Pine Association as to the price which the Government should pay for lumber for cantonment purposes. This agreement covered items of lumber necessary for the construction of a standard cantonment. The price agreed upon, $20 per thousand board feet, was an average for such grades as were required. If the item prices in the cantonment schedule were applied to the percentage of grades produced by southern pine mills, they would represent an average f. o. b. mill price of approximately $24.85.

This voluntary price agreement did much to steady prices, both for Government and for commercial business. While this price applied only to southern yellow pine, the effect on other competing woods was soon evident, and prices on all construction woods thereafter followed the same general trend. The reason for this is that southern yellow pine represents a high percentage of the volume of softwood production, and competing woods, such as Douglas fir and hemlock, must in general follow the same price movement in the competitive markets.

The statement issued by the Lumber Committee about this agreement was as follows:

> The basis on which these prices are secured is not one of arbitrary price fixing, but of informal agreements assuring a maximum price varying according to the cost of production in different sections of the country and the grade of lumber involved.
>
> The elastic arrangement which has been agreed upon between the lumbermen and the lumber committee will leave the Government entire freedom of choice to buy lumber from whatever firms it wishes, and at better prices, if possible. At the same time, contractors purchasing direct on emergency projects will have at their disposal, through the Government agencies, the names of the dealers with whom they can deal to the best advantage.
>
> The committee on lumber is now concentrating its efforts on assisting in arranging a proper apportionment of the lumber supply in the different cantonment districts, in order to fill the orders of the contractors for each cantonment the most effectively from the nearest available source of supply and thus avoid waste in transportation. The committee is working with the lumbermen, the contractors, and the railroads to make all lumber hauls as short as possible.

The price of $20 for a standard cantonment schedule was in effect from June 13 until September 11, when a voluntary reduction of $1 per thousand feet was effected on 1-inch boards and of 50 cents per thousand feet on 2-inch dimension. On October 10, prices were again reduced approximately 50 cents per thousand, and on November 11 a further cut of approximately 40 cents per thousand was made, a total average reduction per thousand feet of about $1.65. The price then in effect was equivalent to $23.20 per thousand feet mill run. Commercial prices in the closing months of the year in many cases were in excess of this figure and early in the following year reached a level several dollars higher than the Government price.

The prices on southern yellow pine remained fixed as of November 11, without further change until after the appointment of the Price Fixing Committee of the War Industries Board in March, 1918. On March 21 and 22 the revision of the maximum price was taken under consideration but prices were left unchanged. On June 15, 1918, however, a new schedule of prices, based on cost investigations of the Federal Trade Commission, was ordered into effect and to continue until September 15, 1918. The approximate advance allowed was $4.80 per thousand board feet, the established base price being $28 per thousand feet. This increase was granted because of the increased cost of production, which was about the same as the advance granted.

The agreement entered into with southern pine operators was as follows:

Maximum prices and procedure for distribution of southern or yellow pine.[1]—After considering the information submitted by the Federal Trade Commission as to the cost of manufacturing southern or yellow pine lumber and the information submitted by the representatives of the manufacturers thereof at the hearings held on the 12th, 13th, and 14th of June, 1918, at which their request for a readjustment of prices on their products was heard, the Price Fixing Committee, appointed by the President, has determined by agreement with the said representative of the manufacturers of southern or yellow pine lumber, upon the following maximum prices for such lumber. These maximum prices shall not be exceeded on any sales and contracts for sale (for mill shipment) made during a period of three months beginning midnight, June 14, 1918, either to the public, to the Government, to Governments of the nations associated with us in the present war, or the railroads, whether by rail or by water shipment.

The prices of all southern or yellow pine lumber in the States of Missouri, Arkansas, Oklahoma, Texas, Louisiana, Mississippi, Tennessee, Alabama, Georgia, and Florida shall not exceed the item prices named in attached list, except that in the first three States named above an additional price of $3 per 1,000 will be allowed on all items of shortleaf soft pine, C and better finish, casing, base, and jambs.

Prices on items not covered by above list shall be priced on basis of nearest comparable item.

The usual trade practices shall continue, including cash discounts to be applied to the United States Government purchases as well as all others, except that in commercial transactions where purchasers do not avail themselves of the cash discounts the accounts may be converted into trade acceptances which do not bear interest before maturity.

The custom of delivered prices of lumber to purchasers' destination points shall remain unchanged, including the equalization of freight rates.

Contracts for the sale of lumber entered into in good faith prior to midnight, June 14, 1918, and enforceable at law, will be performed in accordance with their terms, subject, of course, to orders received from the Government, which may require priority.

It is imperative that, with the least possible disruption of the industry, the vast war needs of the Government, both direct and indirect, for southern or yellow pine lumber be supplied on a fair basis, that an adequate supply and equitable distribution thereof be assured for essential commercial needs, that the movement thereof be facilitated

[1] Official Bulletin, June 24, 1918.

PA Dept of Conservation and Natural Resources

and that injurious speculation therein be prevented. Therefore the procedure outlined below, by agreement with the representatives of the manufacturers of southern or yellow pine lumber, has been adopted for a period of three months, beginning midnight, June 14, 1918.

The procedure is that each manufacturer of southern or yellow pine lumber shall—

1. Make contracts and accept orders for his product at prices not in excess of the applicable maximum prices, always subject to an option at the applicable maximum prices in favor of the United States or the nominee of the War Industries Board. Under this option, which will cover all southern or yellow pine lumber down to time of actual delivery to the purchaser, the War Industries Board to any extent required will allocate either to the Government or to other essential users. Any balance not so allocated will be released for sale to commercial buyers, but at prices no greater than those determined upon as above set forth.

2. Comply with the directions of the War Industries Board, as issued from time to time, with reference to filling commercial requirements in the order of their public importance and to furnishing such information and making such reports as may be required.

3. Keep up to the best of his ability the production of southern or yellow pine lumber so as to insure an adequate supply so long as the war lasts.

4. Neither reduce the scale of wages now being paid nor change fundamental labor conditions now in force.

The Government will apportion the car supply available for lumber and arrange for its transportation, subject to allocation by the War Industries Board as aforesaid, to the end that injury to the industry due to abnormal wartime conditions be neutralized so far as may be.

Foreign trade, except to the Governments of nations associated with us in the present war, is not to be affected by this ruling.

The Government maximum prices, effective midnight June 14, 1918, to and including September 14 (allowed to stand until Sept. 23), 1918, may be found in the Appendix, pages 95 to 97.

A separate schedule was adopted for railroad and car material, which may be found in the Appendix, pages 97 to 100.

The latter part of June the following addition was made to the southern pine maximum price list:

No. 1 pine lath, $3.65; No. 2 pine lath, $2.65. These prices to be f. o. b. shipping point. The following charges were authorized for special millwork: Roofers, when ordered beaded, at $2 per 1,000 feet, overdressed two sides; roofers, when ordered grooved, at $1 per 1,000 feet, overdressed two sides.

Some dissatisfaction was evident on the part of southern pine operators with the prices fixed on June 15, an effort having been made to secure a greater advance in price than was allowed by the Price Fixing Committee. The claims made by representatives of the southern pine industry were that the base price should be $29.75 instead of $28; that the price to the public should be higher than to the Government; that prices should be adjusted oftener than every 90 days; that the Government should not claim discount for alleged cash payments on its orders; that old prices or present prices should not apply on shipments of lumber for the Government or the railroads made during periods after the effective date of such prices; and that railroad material and car material should all be handled through the trade emergency bureaus.

The rulings which cover the settlement of this controversy are as follows:

On all Government orders on which the price is fixed by the Government the price in effect on the date of shipment rather than the price in effect on the date the order is placed shall control, unless expressly stipulated to the contrary at the time the price is fixed, or unless a different rule is adopted by mutual agreement between the Government and the manufacturer.

As a condition to this rule, it must be understood, however, that the shipper will exercise due diligence in an effort to prepare and move the items covered by such order, and that the Southern Pine Emergency Bureau will exercise its best efforts

in inducing the members with whom orders are placed to send shipments forward as promptly as possible; provided that if it is established that due diligence has not been used by any mill, the price shall be the lower price applying in the price-fixing periods involved.

All orders for the Government unshipped on June 14, 1918, shall take the price prevailing at the time such orders were placed with the bureau; provided that this rule shall not be construed to apply to orders placed prior to June 14, 1918, for shipment after September 14, 1918. All restrictions as to deferred shipments are permitted to be removed. If not permitted by car builders to be shipped by September 14, the price applying at the time of delivery shall apply. [1]

On September 23, 1918, it was agreed that the ruling of June 14, 1918, fixing maximum mill prices on southern yellow pine lumber should remain in effect from midnight, September 23, to midnight December 23, 1918, inclusive. Within these dates, timber prices on the lumber schedule were also applied to all shipments to Government departments, including the Emergency Fleet Corporation. Since some Government departments, including the Emergency Fleet Corporation, had been paying less than regular schedule prices for barge material, under an early agreement with the Emergency Fleet Corporation, this new ruling equalized the price to all Government agents. It permitted also an advance of approximately $6 per thousand on barge material, which brought it up to the price paid for Government ship timber of the same character.

The interpretation to be placed upon the terms of sale specified in the price agreement of June 15 was as follows:

The usual trade practices shall continue, including 2 per cent off for cash within 10 days from date of invoice, to be applied to United States Government purchases as well as all others (except in special cases where former trade practice has well established net cash terms and except as to export shipments to foreign countries). In transactions, where purchasers do not avail themselves of cash discounts, the terms shall be 60 days net from date of invoice, and in such transactions the accounts may be converted into trade acceptances which do not bear interest before maturity.

As regards the requirement by the Railroad Administration that shippers shall bulkhead the ends of open freight cars, it was decided that an extra charge for lumber and labor for constructing bulkheads may be made by the shipper and invoiced to consignee, irrespective of whether or not for Government or civilian use.

On the readjustment of item prices, it was decided that the director of lumber, in conference with the war service committee of the manufacturers, should have discretion to make certain minor changes and corrections in the item prices, which, however, should not affect the average base price.

As to price concessions made by manufacturers to wholesale distributors, it was decided to incorporate in the present announcement a former statement, to wit:

"That in cases where manufacturers make reductions from the maximum prices to wholesale dealers, the reductions should be considered in the nature of an allowance to cover the expense and profit of sales by wholesale dealers and should not be interpreted as constituting a general reduction in the market price of lumber to the trade." [2]

In conformity with the authority granted to the lumber director to make certain minor changes and corrections in the pine items, the list issued, effective September 23, contained a few minor changes in pine, the base remaining at $28.

This schedule remained in effect until the date set for its expiration, at which time it was allowed to lapse automatically, and Government control over southern yellow pine prices ceased.

NORTH CAROLINA PINE.

A schedule of maximum prices for "long and short leaf Virginia and Carolina pines" went into effect at midnight June 28, 1918, to remain effective for three months.

[1] Official Bulletin, July 19, 1918.

[2] Official Bulletin, Sept. 27, 1918.

This schedule contemplated—

The delivery of lumber of comparable grades to New York City on approximately the same basis as the list published for southern pine, except as to box grades, which are somewhat higher. The prices to the Government show virtually the same increases as did the prices on southern pine. This means there will be one price to the Government and to the public, the Government paying considerably more than it did formerly, and the public less.

* * * * * * *

The agreement provides that all contracts for lumber shall be subject always to an option in favor of the United States Government and any nominee of the War Industries Board. It provides also for the maintenance of production and the present scale of wages.[1]

The schedule of maximum prices fixed on June 28 may be found in the Appendix, pages 100 to 102.

At a hearing of the manufacturers of long and short leaf pine lumber from the States of Virginia and North and South Carolina before the Price Fixing Committee of the War Industries Board on October 1, 1918, it was agreed that the ruling of June 28, 1918, fixing maximum prices on long and short leaf lumber produced in Virginia and North and South Carolina, should remain in effect from midnight October 1 to midnight December 31, 1918, inclusive.

On the question of the readjustment of item prices it was decided that the director of lumber, in conference with the war-service committee, should have discretion to make minor changes and corrections in the item prices which, however, should not affect the average price.[2]

The minor changes made in the June 28 schedule showed an increase of $1 per thousand feet on No. 4 flooring, and $2 per thousand feet on No. 4 ceiling and partition.

The prices fixed on October 1 expired at midnight December 31, 1918, and were not renewed.

DOUGLAS FIR.

The price of Douglas fir lumber and logs was first officially fixed on March 19, 1918, to hold until midnight May 31, 1918. The price for ship timber stock was set at $40 per thousand board feet, an unofficial price agreed upon previously being retained for all other forms of lumber. The price of logs was set at $19 for No. 1, $15.50 for No. 2, and $10 for No. 3, per thousand feet log scale.

On April 10, 1918, the Spruce Production Division of the Signal Corps of the United States Army issued a schedule of prices for Douglas fir airplane material. The f. o. b. mill price for Douglas fir lumber cut to specifications was $65 per thousand board feet.

As a result of conferences held on June 10 and 11, 1918, maximum prices for Douglas fir logs and lumber were revised by the Price Fixing Committee. The prices established were f. o. b. mill, the same for all purchasers. They were maximum, not fixed, prices, to hold for a period of 90 days from June 15. They represented an average increase of approximately $2.75 per thousand board feet over the former list of prices for Douglas fir sold to the Government. No regulation was made with regard to transactions other than sales by manufacturers at the schedule prices. Wholesale dealers, retail dealers, and all others were entitled to buy on the basis of the f. o. b. mill prices set by the committee. No regulation of rates or profits was made with regard to sales by either wholesalers or retailers to customers. The agreement was announced as follows:

---

[1] Official Bulletin, July 5, 1918. [2] Official Bulletin, Oct. 7, 1918.

After considering the information submitted by the Federal Trade Commission as to the cost of logging and of manufacturing lumber and the information submitted by the representatives of the loggers and lumber manufacturers of the Pacific Northwest at the hearings held on Monday and Tuesday, June 10 and 11, 1918, at which their request for a readjustment of prices on their products was heard, the Price Fixing Committee, appointed by the President, has determined upon, by agreement with the said representatives of the loggers and lumber manufacturers of the Pacific Northwest, the following maximum prices for fir logs and fir lumber produced in the Pacific Northwest, which maximum prices shall not be exceeded on any sales and contracts for the sale thereof (for mill shipment) made during a period of three months, beginning midnight June 15, 1918, either to the public, to the Government, to governments of the nations associated with us in the present war, or the railroads, whether by rail or by water shipment.

The maximum price for fir logs in the Pacific Northwest, delivered at points where it has been customary to make deliveries to the sawmill operators, shall be $20 per thousand for No. 1 logs, $16 per thousand for No. 2 logs, and $12 per thousand for No. 3 logs, scale as to the grade and contents to be determined according to the methods that have been customary in the various districts. Said prices are on a basis of logs up to and including 40 feet in length; logs over 40 feet in length to be priced on same basis for extra lengths, as has heretofore been established by custom or (in case of uncertainty or question or variation in the different districts as to past custom, as to point of delivery, method of scaling, or prices for extra lengths) as may be decided by the lumber section of the War Industries Board. In no case shall any greater prices than those mentioned above be allowed for logs during the period mentioned. Any additional cost for log freights occasioned by Order No. 28 of the Director General of Railroads to be added to foregoing log prices on logs so affected.

The price of fir ship timbers under the Ferris schedule to the Emergency Fleet Corporation to remain the same as those determined upon by the Price Fixing Committee March 19, 1918, namely: Item prices that average $40 per thousand for a complete schedule for both the rough and dressed items, and all sales of lumber for other vessels requiring a schedule of lumber of similar type shall be furnished at not to exceed the same basis of prices.

The prices of fir lumber for aircraft use to remain the same as those now in effect.

The prices of all other items of fir lumber shall be based on the West Coast price list of May 1, 1915, plus additions noted on discount sheet No. 22 of February 15, 1918, on the following items:

All items of No. 3 clear and better.

All items of fir timbers larger than 8 by 8 dimensions of all lengths.

All items 3 inches and thicker and 10 inches and wider and plus $1 per thousand less than discount sheet No. 22 on all remaining items of fir on said lumber list.

Prices on items not covered by the above list shall be priced on basis of nearest comparable item.

The custom of delivered prices of lumber to purchasers' destination points shall remain unchanged.

Contracts for sale of logs and of lumber entered into in good faith prior to midnight of June 15, 1918, and enforceable at law will be performed in accordance with their terms, subject, of course, to orders received from the Government which may require priority.

It is imperative that with the least possible disruption of the industry the vast war needs of the Government, both direct and indirect, for fir logs and fir lumber be supplied on a fair basis, that an adequate supply and equitable distribution thereof be assured for essential commercial needs, that the movement thereof be facilitated and that injurious speculation therein be prevented. Therefore the procedure outlined below, by agreement with the representatives of the loggers and lumber manufacturers of the Pacific Northwest, has been adopted for a period of three months, beginning midnight June 15, 1918.[1]

The procedure to be followed by loggers and manufacturers was the same as for southern pine producers.

In July, 1918, new specifications for Douglas fir cants for aircraft material were issued by the Signal Corps of the United States Army, which carried with them a price of $50 per thousand board feet f. o. b. mill. These specifications superseded those issued in April, 1918.

[1] Official Bulletin, June 24, 1918.

In August, 1918, at the request of the industry, the Price Fixing Committee of the War Industries Board extended the date of the expiration of the maximum prices on Douglas fir lumber and logs from September 15, 1918, to October 15, 1918.

On October 11, at a meeting of the representatives of the West Coast Lumber Manufacturers' Association and loggers and the Price Fixing Committee, it was agreed that the ruling as to present maximum prices on Douglas fir lumber and logs should remain in effect from midnight October 15, 1918, to midnight January 15, 1919, inclusive. The maximum prices agreed upon in June and which were continued until January 15, 1919, may be found in the Appendix, pages 102 to 106.

The maximum prices fixed by the Government by agreement between the lumbermen and loggers of the Northwest and the Price Fixing Committee were discontinued after their expiration on January 15, 1919.

EASTERN SPRUCE.

On April 12, 1918, prices for eastern spruce were fixed by the Price Fixing Committee in agreement with the New England Spruce Emergency Bureau. The prices were to remain in force until July 1, 1918, or until such prior time as the Federal Trade Commission had completed an investigation of the cost of manufacturing lumber in the New England district and was prepared to submit its findings to the Price Fixing Committee. The schedule of prices agreed upon may be found in the Appendix, pages 106 to 108.

On July 19, 1918, a readjustment of the prices of New England spruce lumber was made as follows:

> After considering the information submitted by the Federal Trade Commission as to the cost of manufacturing New England spruce lumber and the information submitted by the representatives of the manufacturers thereof at the hearings held on the 18th of July, 1918, at which their request for a readjustment of prices in their products was heard, the Price Fixing Committee appointed by the President has determined, by agreement with said representatives of the manufacturers of New England spruce lumber, upon the following maximum prices for such lumber. These maximum prices shall not be exceeded on any sales and contracts for sale (for mill shipment) made by manufacturer, dealer, or other person during a period beginning midnight November 1, 1918, to the Government, to the Governments of the nations associated with us in the present war, to the railroads, or to such others as customarily purchase lumber for mill shipment, whether by rail or water.
>
> The prices of all New England spruce lumber in the States of Maine, New Hampshire, Vermont, and Massachusetts shall not exceed the item prices named in attached list. These prices are for New England spruce lumber delivered (freight allowed) to Boston, Mass. They do not include war tax on freight bills. For shipment to other destination points freight readjustment will be governed by differentials shown in Bangor and Aroostock Railroad lumber tariff on basis of 3,000 pounds weight to 1,000 feet of lumber.
>
> Prices on items not covered by the above list shall be priced on basis of nearest comparable item.
>
> The usual trade practices shall continue, including cash discount of 1 per cent in 15 days or 30 days net.
>
> Contracts for the sale of lumber entered into in good faith prior to midnight July 19, 1918, and enforcible at law, will be performed in accordance with their terms, subject, of course, to orders received from the Government which may require priority.[1]

The procedures to be followed by manufacturers of New England spruce were similar to those for southern yellow pine.[2]

---

[1] Official Bulletin, July 29, 1918.

[2] See pp. 25 to 27.

The July 19 price list showed an increase over the April 12 list of $8 per thousand board feet on all items of dimension. Some new items were added in random lengths, the increase in price on all random lengths being less than on dimension. In agreement with the industry, the price list of July 19, which expired on midnight November 1, 1918, was continued until December 1, 1918. By later agreement the maximum prices were discontinued on December 1.

PENNSYLVANIA HEMLOCK.

The maximum price on Pennsylvania hemlock was first fixed on May 9, 1918, to expire on August 8, 1918. On August 15, 1918, a base price of $29 was adopted, an advance of $2 per thousand feet over the May 9 list.

After considering the information submitted by the Federal Trade Commission as to the cost of hemlock lumber production in the State of Pennsylvania, and the information submitted by the representatives of the manufacturers of such lumber at a hearing granted them on Wednesday, August 14, 1918, the Price Fixing Committee of the War Industries Board, by agreement with the producers, passed a ruling fixing a maximum base price for mill shipments of Pennsylvania hemlock lumber at $29 per thousand feet f. o. b. cars shipping point, such price to become effective midnight August 15, 1918, and to remain in effect to and including October 20, 1918.

* * * * * * *

By reason of the construction program of the various governmental departments, it is apparent that the Government will require substantially the entire output of No. 1 and No. 2 grades of Pennsylvania hemlock. It was, therefore, agreed at the hearing by all of the above manufacturers—

1. That their entire stock and production of Pennsylvania hemlock, grades Nos. 1 and 2, will be held available for the direct and indirect needs of the Government in the war, and will be distributed and dealt in subject to the control of the War Industries Board.

2. That such of the foregoing lumber as, in the judgment of the chief of the lumber section of said board, can without detriment to governmental requirements be released for urgent commercial or other needs, may be sold to car log purchasers (with his consent) at prices which, per item, shall not exceed the prices as established by the attached list.[1]

The list referred to above contains the item prices, which are unchanged from the old list, except that they apply to the new $29 base. The maximum prices fixed may be found in the Appendix, pages 108 to 109.

On October 11 it was agreed that these maximum prices should be continued without change. On November 14 they were continued provisionally for 30 days. At midnight December 20, 1918, Pennsylvania hemlock prices were discontinued by mutual agreement between the Price Fixing Committee and the producers.

WESTERN SPRUCE.

At a conference of spruce manufacturers of Washington and Oregon and representatives of the Signal Corps of the United States Army, Aircraft Production Board, the British, French, and Italian Commissions, and the Lumber Committee of the Council of National Defense, held in July, 1917, the spruce manufacturers agreed to furnish aircraft spruce, of specified quality and size, during the remainder of the year, at $105 per thousand board feet.

On April 10, 1918, the Spruce Production Division of the Signal Corps, United States Army, issued a new schedule of prices for western spruce and Port Orford cedar airplane material. The price for "A"

[1] Official Bulletin, Aug. 28, 1918.

wing beam stock of western spruce and Port Orford cedar was set at $175 per thousand board feet f. o. b. mill; "B" long clears at $80 per thousand board feet f. o. b. mill; and "C" short and thin clears at $45 per thousand board feet f. o. b. mill. The price for western spruce cants for aircraft material, grade 1, was set at $90 per thousand board feet f. o. b. mill, grade 2, $50 per thousand feet f. o. b. mill. These prices remained in effect throughout the remainder of the year.

BLACK WALNUT.

No official price was set on black walnut lumber as a whole, but a fixed maximum price was set on gunstock flitches and propeller grades.

On August 10, 1917, the Ordnance Department of the United States Army fixed a maximum price of $1.05 each for gunstock dimension blanks f. o. b. mill. On August 1, 1918, the price was raised to $1.20 each by action of the Price Fixing Committee of the War Industries Board.

The Signal Corps of the United States Army on January 28, 1918, fixed a maximum price of $310 per thousand board feet for airplane propeller stock, which was continued throughout the war.

On August 1, 1918, the Price Fixing Committee also made an informal agreement with lumber manufacturers as to the price of 2½-inch black walnut flitch, which was set at $80 per thousand board feet f. o. b. mill. This price was not binding on manufacturers but was regarded as a fair price for the material. An informal agreement was also made on August 7, 1918, between the Price Fixing Committee and walnut log buyers as to a fair and reasonable price to be paid for black walnut logs. An announcement was made by the Director of Lumber, War Industries Board, as follows:

As an aid to the Government in securing the outturn at fair and reasonable prices of the walnut timber necessary for its needs and for the protection of the walnut timber owners, we ask that you give publicity to the following ranges of prices for each diameter which the log buyers or the walnut manufacturers, having Government contracts for gunstocks and propeller lumber, will pay for good walnut logs 12 inches and up in diameter and 8 feet and up in length.

Diameter (inches).	Prices of black walnut logs 8 feet and over long on board cars on railroad.		Equivalent value for standing timber.	
	Minimum.	Maximum.	Minimum.	Maximum.
	Per M.	*Per M.*	*Per M.*	*Per M.*
14	$45	$55	$20	$35
16	55	65	30	45
18	65	75	40	50
20	75	85	50	60
22	85	95	60	70
24	95	105	70	80
26	105	115	80	90
28	115	125	90	100
30	125	135	100	110
31 and up	135	150	110	120

In arriving at prices which it is paying for propeller lumber and gunstocks the Government has taken these log prices into consideration and has allowed the mills prices for the material it gets which will allow for only a fair and reasonable profit both to the mills and the log buyer.

The above prices were used as a guide only, purchases being made both above and below those given in the log price list.

CYPRESS AND TUPELO.

The maximum price of cypress and tupelo lumber was not fixed by the Price Fixing Committee, but an unofficial price list was issued by the Cypress Emergency Bureau, which was recognized as representing fair and reasonable prices. The list, dated October 25, 1918, and in effect to the close of the war period, may be found in the Appendix, pages 109 to 111.

BIRCH LOGS.

An informal agreement as to fair and reasonable prices for birch veneer logs suitable for airplane purposes was made on October 30, 1918, at a conference attended by representatives of the lumber section of the War Industries Board, Bureau of Aircraft Production, and veneer manufacturers and loggers. The prices agreed upon f. o. b. shipping point for logs of veneer quality were as follows: Logs 12 to 15½ inches in diameter, $55 per thousand feet; logs 16 inches and up in diameter, $65 per thousand feet. These prices remained unchanged throughout the period of the war.

MAHOGANY LUMBER.

An informal agreement as to a fair and reasonable price for mahogany lumber, propeller quality, was entered into in March, 1918, between mahogany producers and the Bureau of Aircraft Production. The price agreed upon was $350 per thousand board feet. It remained unchanged throughout the period of the war.

RETAIL LUMBER PRICES.

Occasional purchases of lumber from retail lumber dealers to meet emergency needs became necessary for certain branches of the Government, and, in order to insure a fair and reasonable price, a fixed maximum retail price was established for Douglas fir and southern yellow pine lumber for the period from June 1, 1918, to July 31, 1918. These prices applied to emergency purchases of lumber from retail lumber dealers in the cities and vicinities of Boston, New York, Newark, New Jersey, Philadelphia, and Baltimore.

The agreement was:

That the dealers be allowed for handling charges and profit the following advance prices over and above the Government's delivered prices f. o. b. cars in the districts mentioned, including switching charges, if any: To the dealers in the cities and vicinities of Boston, New York City, and Newark, N. J., $12.50 per 1,000 feet board measure; to the dealers in the cities of Philadelphia and Baltimore, $11.50 per 1,000 feet board measure.

These prices in all districts to be based on the Government department replacing the lumber to the dealers within 90 days from date of replacement order at the Government's manufacturers' prices delivered f. o. b cars in the districts mentioned, provided the dealers prefer to have the lumber replaced, or a cash settlement on the same basis if they prefer not to have the lumber replaced. These prices to the Government for the lumber received from the retail dealers in all cases to be f. o. b. dealers' wagons, trucks, or railroad cars in dealers' yards.

Working.—Where dressing or ripping is necessary to obtain the items desired by the Government, charges for same shall not exceed the following: Dressing, one, two, or four sides, $4 per 1,000 feet board measure; ripping or resawing (first cut), $4 per 1,000 feet board measure; ripping or resawing (second cut), $2 per 1,000 feet board measure.

Teaming.—When lumber is hauled by retail yards, the charges for same shall not exceed the charges following: By auto truck, $2.50 per 1,000 first mile, with allowance of 35 cents per 1,000 each additional mile: by team, $1.75 per 1,000 first mile, with allowance of 25 cents per 1,000 each additional mile.

In the event the Government does not replace the lumber taken from local yards within the time stated above it is understood that the retailer may refuse to accept lumber replacement, and settlement for lumber taken should be made on basis of the following allowances in addition to the original replacement price: Six dollars per 1,000 feet on all shortleaf; $6 per 1,000 feet on all longleaf under 12 inches; $10 per 1,000 feet on all longleaf 12 inches and over.

In the matter of replacing lumber taken from retail yards under the above agreement it is understood that the lumber is to be replaced in the same sizes or easier sizes than the sizes taken from the retail dealers. That is to say, if boards are taken from the retail dealers, boards are to be replaced; or if framing lumber is taken, framing lumber is to be replaced in sizes no larger than the sizes taken.

For the present at least it is understood that all lumber replacements will come from the districts of Alabama-Missississippi territory, southern pine territory, Georgia-Florida territory, and from the fir district in the Pacific Northwest. If North Carolina pine is taken from the retail dealers' yards it may or can be replaced by comparable grade from the shortleaf territory of the above-mentioned producing districts.

All requests for replacement by the retail dealers should be accompanied by the signature of the receiving Government officer or agent, that the director of lumber may know in replacing this lumber that the sizes and quantities asked for are justified, and should be submitted to the Government bureau in Washington through which the original authority for the original purchase by the Government was authorized.

It must be distinctly understood that the above prices referred to are only effective in the cities and vicinities above mentioned, where the costs of handling and doing business have been investigated by the Federal Trade Commission.

All departments of the Army and Navy and the Emergency Fleet Corporation agree immediately to put maximum prices into effect, and all purchasing officers of all departments are to be notified immediately of the above decision.[1]

RULING ON SOFTWOOD PRICES.

On July 2, 1918, the Priee Fixing Committee issued the following statement eovering the application of maximum priees of softwoods:

All lumber manufacturers and dealers are hereby notified that the present prices for soft lumber for mill shipment as heretofore established or which may hereafter be established by the Price Fixing Committee of the War Industries Board shall remain in effect during the period of time prescribed, and that in no case must orders for lumber for mill shipment or reconsignment thereof be accepted, sold, or invoiced to any purchaser by either a manufacturer, dealer, or other person at a greater price per item than the maximum price fixed by the Price Fixing Committee of the War Industries Board, except where delivered prices are made to purchasers' destination points, in which cases freight may be added on the basis of standard weights for each item so priced, also except as to orders received or contracts made prior to the date of ruling of the Price Fixing Committee governing the producing territory involved.

The Price Fixing Committee has taken the position that cost figures presented by the Federal Trade Commission on which the Price Fixing Committee has based its rulings already include sales service to purchaser. So, in fact, in paying the price fixed in the ruling, the purchaser has already paid for this sales service. The purchaser or public should not be asked to pay any additional price to any vender offering mill shipments.[2]

The wholesale lumber dealers of the eountry protested against this ruling, saying that the priees as fixed did not allow any compensation or profit to them in the sale and distribution of lumber, and that the striet applieation of the ruling would destroy a selling and distributing ageney whieh had long been a reeognized faetor in the lumber trade. On July 23 the Priee Fixing Committee, after eonsideration of arguments submitted by the wholesale lumber dealers, refused to modify its ruling of July 2.

[1] Official Bulletin, June 19, 1918.

[2] Official Bulletin, July 5, 1918.

CONSERVATION MEASURES AFFECTING THE LUMBER INDUSTRY.

During the course of the war it was found necessary to limit the activities of various wood-using industries, in order to make available to the Government the lumber ordinarily used by them and to divert labor and supplies to military purposes. Control was exercised chiefly through the Priorities Division of the War Industries Board, which from time to time issued orders governing priority in securing labor, fuel, material, and transportation. In some cases requests for the conservation of certain wood products were made by agencies directly concerned with a given class of lumber, without the intervention of the Priorities Division.

The chief measures, arranged in chronological order were as follows:

March 21, 1918.—Nonwar construction.

The following resolution was adopted by the War Industries Board:

Whereas it has come to the notice of this board that new industrial corporations are being organized in different sections of the United States for the erection of industrial plants which can not be utilized in the prosecution of the war; and

Whereas plans are being considered by certain States, counties, cities, and towns for the construction of public buildings and other improvements which will not contribute toward winning the war; and

Whereas the carrying forward of these activities will involve the utilization of labor, materials, and capital urgently required for war purposes: Now, therefore, be it

Resolved by the War Industries Board, That in the public interest all new undertakings not essential to and not contributing either directly or indirectly toward winning the war, which involve the utilization of labor, material, and capital required in the production, supply, or distribution of direct or indirect war needs will be discouraged, notwithstanding they may be of local importance and of a character which should in normal times meet with every encouragement; and be it further

Resolved, That in fairness to those interested therein notice is hereby given that this board will withhold from such projects priority assistance, without which new construction of the character mentioned will frequently be found impracticable, and that this notice shall be given wide publicity, that all parties interested in such undertakings may be fully apprised of the difficulties and delays to which they will be subjected and embark upon them at their peril.

In conformity with this resolution manufacturers of the principal building materials were requested to sign and file with the Priorities Division the following pledge, and to exact a similar pledge from their customers who purchased for resale:

The undersigned hereby pledges itself not to use, nor so far as lies within its power permit to be used, any products of its manufacture now in, or which may hereafter come into, its possession or control, save (*a*) for essential uses as that term has been or may be defined or applied from time to time by the Priorities Division of the War Industries Board, or (*b*) under permits in writing signed by or under authority of such Priorities Division; that it will make no sale or delivery of such products to any customer for resale until such customer has filed with it a similar pledge in writing, and that it will use its utmost endeavor to insure its products shall be distributed solely for essential uses.

March 28, 1918.—Conservation of walnut timber.

The Ordnance Department and the Signal Corps of the United States Army jointly requested veneer manufacturers to refrain, for the duration of the war, from the manufacture of veneer from walnut logs or lumber, other than from butts, crotches, or figured material.

April 6, 1918.—Preference list No. 1.

Preference List No. 1 of the Priorities Division of the War Industries Board prescribed regulations for the guidance of all governmental agencies in the supply and in the distribution by rail or water of coal

and coke. It contained the names of industries whose operation was of exceptional importance, measured by the extent of their direct or indirect contribution either toward winning the war or toward promoting the national welfare. The industries mentioned were to be accorded preferential treatment by the Fuel Administration in the distribution of coal and coke and also in the transportation of such coal and coke by the railroads. The same plan was followed in according preferential treatment to war industries and plants in the transportation of raw materials and supplies required by them in their manufacturing operations. Lumber manufacturing plants were not included in this list, but among the number were numerous industries using lumber as raw material.

April 9, 1918.[1]—Conservation of musical instrument materials.

In conference with the War Industries Board, representatives of the musical-instrument industry, including piano manufacturers, agreed to curtail output 30 per cent during April and May, and to make arrangements for the transfer of war work to the musical instrument factories wherever possible.

July 5, 1918.—Conservation of building materials.

The War Industries Board reaffirmed its policy, announced in the resolution of March 21, regarding new building construction when not contributing to war activities. The necessity for conserving fuel and relieving congestion in transportation was particularly imperative in that territory lying north of the Potomac River and east of the Allegheny Mountains. The cooperation of all building materials industries in conserving fuel, materials, transportation, and labor needed to meet war requirements was invited and expected.

July 26, 1918.[2]—Restriction of the manufacture of farm wagons and trucks.

Manufacturers of farm wagons and trucks were called on by the Conservation Division of the War Industries Board greatly to reduce the varieties of their product for the purpose of conserving material. The chief object of this curtailment was to eliminate the avoidable use of iron and steel. It also served, however, to curtail the amount of lumber required for vehicle construction.

August 2, 1918.[2]—Conservation of furniture-making materials.

Representatives of the furniture-manufacturing industry of the United States conferred with officials of the Conservation Division and the Wood Products Section of the War Industries Board upon plans for the conservation of materials and of space in transportation.

August 22, 1918.—Conservation of building materials.

The State Councils of Defense were asked to report on all proposed new building projects in their respective territories.

August 29, 1918.[2]—Conservation of building materials.

The construction of public buildings not essential to winning the war was prohibited.

---

[1] Date of publication in the Official Bulletin. Exact date of agreement not known.
[2] Date of publication in the Official Bulletin.

September 3, 1918.—Preference list No. 2.

Preference List No. 2 superseded Preference List No. 1 and all its amendments and supplements.

This list is the master key governing the flow of basic industrial elements to the industries essential to the war program. * * *

It is the basis of industrial exemption from the draft, and may be regarded as the governing factor in the distribution of labor, capital, facilities, material, transportation, and fuel.

The Priorities Division has grouped major industries according to their relative importance into four great classes, consideration being given in this grouping to these factors: (1) Intrinsic importance of the product for use during the war and the urgency; (2) necessity for maintaining or stimulating and increasing the total quantity of production; (3) proportion of the capacity of the industry or plant devoted to the production of essential products. Each industry or plant is given a class number. * * *

Where it is imperative not only to maintain but to stimulate and increase production to supply abnormal demands created by war requirements, a high rating is necessary even though the intrinsic importance of the product may be less than that of other products placed in the lower classification, due to the fact that the supply of such other products equals the demand without the stimulus of high priority. Certain plants produce commodities of more relative importance, but at the same time produce other commodities of less relative importance and under such circumstances consideration and weight is given to the ratio of production between the more and less important commodities.

The inclusion of the industries and plants on this preference list does not operate as an embargo against all others, but the effect is to defer the requirements of all other industries and plants until the requirements of those on the preference list shall have been satisfied. The paramount purpose of priorities is the selective mobilization of the products of the soil, the mines, and factories for direct and indirect war needs in such a way as will most effectually contribute toward winning the war.

In listing industries as such or individual plants, while a number of factors are taken into account, the ultimate test is: To what extent, if at all, will according preference contribute directly or indirectly toward winning the war; and, if at all, how urgent is the need?

A high priority classification does not always mean that the product of the industry or plant so classified is of greater intrinsic importance than those of industries and plants in a lower classification or not appearing at all on the preference list, but that, taking into account the urgency of the demand and the relation of supply to demand, it is in the public interest that the artificial stimulus of priority should be applied. All priority is relative and implies purposeful discrimination. * * *[1]

The unprecedented expansion of the Army and of the Navy of the United States, the creation of the Emergency Fleet Corporation to engage in shipbuilding on an extraordinary scale, and the demands made by our allies for munitions, material, equipment, fuel, foods and feeds, the abrupt change from a peace to a war basis, have all combined to create abnormal industrial conditions in the United States, to regulate which the law of supply and demand and other economic laws applicable to normal conditions are wholly inadequate. The administration of priorities is calculated to bring order out of chaos and to develop an evenly balanced industrial program to meet the requirements of the military program, and at the same time supply the essential requirements (as distinguished from the mere wants or desires) of the civilian population.[2]

The lumber industry was not mentioned specifically in the preference list, but there were included a number of industries which use lumber extensively in the manufacture of their products. The industries using large quantities of wood which are mentioned and their class groupings are: Aircraft, I; farm implements, IV; food containers, IV; public institutions and buildings (maintenance and operation of) other than hospitals and sanitariums, III; public buildings (maintenance and operation of) used as hospitals or sanitariums, I; public utilities, II; pulp and paper plants, IV; ships, I; War Department and Navy Department construction work, II.

---

[1] Official Bulletin, Sept. 9, 1918.
[2] Official Bulletin, Sept. 9, 1918, quoted from a statement by E. B. Parker, chairman of the Priorities Division.

September 3, 1918.—Nonwar construction.

Circular No. 21 was issued to all manufacturers, jobbers, distributors, dealers, and consumers of building materials. This circular contained, in addition to a copy of the resolution adopted by the War Industries Board on March 21, 1918, and the pledge required of the manufacturers of the principal building materials, the following interpretation of the resolution.[1] This interpretation was issued in order "that all interested in the manufacture and sale of building materials, as well as those interested in building projects of every character, may have a clear definition of or a ready means of ascertaining the uses to which such materials may be put, and be advised of building projects which may be prosecuted during the war with the approval of the War Industries Board. * * *"

Structures, roads, or other construction projects falling within the following classifications are hereby approved, and no permits or licenses will be required therefor:

1. After having first been cleared and approved by the War Industries Board, those undertaken directly by or under contract with the War Department or the Navy Department of the United States or the United States Shipping Board Emergency Fleet Corporation, the Bureau of Industrial Housing and Transportation of the United States Department of Labor, or the United States Housing Corporation.
2. Repairs of or extensions to existing buildings involving in the aggregate a cost not exceeding $2,500.
3. Roadways, buildings, and other structures undertaken by or under contract with the United States Railroad Administration or a railroad operated by such administration.
4. Those directly connected with mines producing coal, metals, and ferro-alloy minerals; and
5. Public highway improvements and street pavements when expressly approved in writing by the United States Highways Council.

No building project not falling within one of the foregoing classes shall be undertaken without a permit in writing issued by or under the authority of the chief of the Nonwar Construction Section of the Priorities Division of the War Industries Board.

Should one contemplating building conceive his proposed project to be in the public interest or of such essentiality that under existing conditions it should not be deferred, then he will make a full statement of the facts in writing, under oath, and present same to the local representative of the Council of National Defense, applying to such representative for his approval of the proposed construction. Should such local representative approve the construction project, he will promptly transmit the application, stating clearly and fully his reason for approving same, to the chairman of the State Council of Defense, for his consideration. If approved by the latter, he will transmit it to the chief of the Nonwar Construction Section of the Priorities Division of the War Industries Board, Washington, D. C., for consideration, if need be further investigation, and final decision. Should the application be finally approved by the Priorities Division a construction permit will issue which will constitute a warrant to manufacturers and dealers who have taken the pledges of cooperation above mentioned to sell and deliver building materials required in the construction of the licensed building project.

While it is not the policy of the Government to unnecessarily interfere with any legitimate business, industry, or construction project, it must be borne in mind that there is an imperative and constantly increasing demand for labor, material, and capital for the production and distribution of direct and indirect war needs, to satisfy which much nonwar construction must be deferred. A full realization of this fact by all loyal and patriotic citizens, including State and municipal authorities, is all that is required to postpone such construction activities as interfere with the war program. The State and local representatives of the Council of National Defense are with confidence depended upon to fully acquaint the whole people of these United States with the pressing need for the most rigid economy, measured not only in terms of dollars but in terms of labor, materials, and transportation service. The construction projects which must now be deferred may be undertaken when we shall have won the war and will then furnish employment to the returning artisan now on the battle front as well as those who will then be released by strictly war industries.[2]

---

[1] The resolution and pledge are given on p. 35.

[2] Official Bulletin, Sept. 12, 1918.

On September 27, 1918,[1] Circular No. 21 was amended. To subdivision 2 was added the following clause: "And new construction for farm purposes only, involving in the aggregate a cost not exceeding one thousand ($1,000) dollars." To subdivision 4 was added the following clause: "And production (but not refining) of mineral oil and natural gas."

September 10, 1918.[1]—Conservation of wood in cotton spools.

The Construction Division of the War Industries Board, after agreement with the cotton spool manufacturers, issued a schedule for the industry, putting into effect plans for the conservation of lumber, cardboard, twine, nails, and other materials. Effective January 1, spools were to be made of the smallest practicable diameter for 200 yards minimum per spool for white, black, and colored domestic cotton threads for all cords; 100 yards minimum per spool for carpet and button threads; 45 yards minimum per unit for darning cotton. The size of spools in use for winding carpet and button threads was ordered reduced by at least 50 per cent, without any reduction in yardage. For the manufacturing trade tubes and cones were to be substituted where possible for wooden spools.

September 12, 1918.—Conservation of building materials.

Circular No. 21 issued by the Priorities Division of the War Industries Board under date of September 3, 1918, dealing with nonwar construction, applies only to projected buildings and not to those already begun. Where a substantial portion of a building has already been constructed, manufacturers and distributors of and dealers in building materials may continue to furnish such materials for the completion of such building, pending further action by the War Industries Board. The local representatives of the Council of National Defense are requested to make surveys of all building activities in their respective territories and report as promptly as possible to their State chairman, together with their recommendations concerning the necessity for the continuance of such construction or deferring same until after the war. The State chairman will in turn forward such reports with their recommendations, to D. R. McLennan, Chief of the Nonwar Construction Section of the Priorities Division of the War Industries Board, Washington, D. C.[2]

September 16, 1918.—Conservation of materials used in furniture manufacture.

The Conservation Division of the War Industries Board in cooperation with furniture manufacturers issued a statement of the conservation program in the furniture industry. The program agreed upon called for a curtailment of at least 50 per cent on active patterns as of July 1, 1917, to take effect on January 1, 1918. In the meantime no new patterns were to be made by any manufacturer, the use of metal was to be discontinued wherever practicable, and the products so packed that minimum space would be required in transportation. The order reducing the number of patterns was revoked on November 25, 1918.

September 17, 1918.—Labor priority.

Labor Priority Bulletin No. 1, issued by the Priorities Division of the War Industries Board and addressed to the United States Employment Service and industrial advisers, defined priority for employ-

[1] Date of publication in the Official Bulletin.

[2] Official Bulletin, Sept. 12, 1918.

ees engaged in the lumber industry. Following is the most important portion of the bulletin:

It is deemed of immediate importance that information as to the essentail character of the lumber industry and the degree of consideration which should be given the industry with respect to its labor requirements should be furnished to you for your guidance in the administration of the labor-recruiting program and to the district boards for their guidance in the matter of claims for industrial deferment.

It will be noted that the lumber industry as such does not appear on the preference list, and the comparatively few plants whose names appear thereon were listed to assist them in securing fuel to operate their logging roads. As a general rule it has been deemed in the public interest that lumber-manufacturing plants should use wood as a fuel in order to conserve coal in those districts where the coal supply is less than the demand (although there are necessary exceptions to this rule), and this is one of the reasons why it was not deemed proper to accord to the industry as a whole preferential treatment for its supply of fuel.

Taking into account its very heavy tonnage, coupled with the necessity of applying special priority regulations for the movement of Government timbers and lumber, as well as the necessity for placing embargoes from time to time on commercial shipments into congested territory, it was not deemed proper to accord to the industry as a whole preferential treatment for its transportation service.

The essential nature of the industry as a whole is, however, recognized, and a large per cent of the present lumber production of the United States is required, directly or indirectly, in the prosecution of the war.

To guard against the action of the Priorities Board being misunderstood because of so important an industry being omitted from the preference list, it is proper to advise you that in the opinion of the Priorities Board the district board may, in passing upon claims for industrial deferment made by or on behalf of "necessary" employees of lumber-manufacturing plants supplying lumber "necessary to the maintenance of military establishments, or the effective operation of the military forces of the United States or its allies, or to the maintenance of national interest during the emergency," give to such claims consideration substantially equivalent to that which would be given them if they appeared in Class IV on the preference list. The suggestion is made that when such claims for industrial deferment arise the registrant or the plant interested be given an opportunity to present evidence in such form and manner as may be indicated by the district boards; that it is to some substantial extent supplying lumber through direct or indirect orders, to the Government or some of its agencies (including railroads operated by the United States Railroad Administration), or supplying to others lumber of primary importance in war work, or in essential civilian requirements.

Attention is particularly invited to the fact that for some time to come many of the lumber manufacturing plants in the district east of the Mississippi River and south of the Ohio and Potomac Rivers, and also in Louisiana and Texas, and in the Pennsylvania hemlock district in eastern Pennsylvania, will be largely engaged in filling heavy orders for the War Department and for the Emergency Fleet Corporation, as well as for the Railroad Administration, while many mills in the States of Washington and Oregon will be largely engaged in supplying spruce and fir for aircraft production, as well as ship timbers.[1]

October 25, 1918.[2]—Rules in connection with priorities for lumber manufacturers.

The Priorities Division of the War Industries Board issued Circular No. 54, a portion of which is as follows:

I. Each manufacturer will conserve to the greatest possible extent materials, fuel, and labor; will so far as is practicable, having due regard to the production of lumber necessary for direct war uses, limit his production of lumber to the current demand therefor; will refrain from unnecessary acquisition of and the hoarding of fuel, supplies, equipment, and materials; and will limit his items and amounts of production for export to those covered by export licenses issued by the War Trade Board.

II. No manufacturer will sell or deliver lumber except for essential uses as that term may from time to time be defined by the Priorities Division of the War Industries Board, which until further ordered shall include only the following:

(*a*) For supplying the requirements of the United States Government, or of any department, agency, or bureau thereof, or of the Allies.

[1] Official Bulletin, Sept. 21, 1918.

[2] Date of publication in the Official Bulletin.

(*b*) For supplying railroads operated by the United States Railroad Administration.

(*c*) For supplying to others lumber of primary importance in war work or in essential civilian requirements. Each manufacturer should carefully and conscientiously scrutinize every order received for delivery to a user in order to ascertain that the use to which the lumber is to be put is an essential use. Should the manufacturer be in doubt, he will submit the matter to the Priorities Division, making a full statement of the name of the purchaser, the amount of the order, and the use to which it is to be put. Should the lumber be sold to a customer for resale, the manufacturer will protect himself by obtaining the pledge provided for in Paragraph IV hereof.

Construction projects, neither (*a*) falling within any one of the seven classes not requiring permits by the terms of Circular No. 21 issued by the Priorities Division, September 3, 1918, as revised October 15, 1918, nor (*b*) for which no construction permit shall have been issued by the Nonwar Construction Section of said Priorities Division, shall not be deemed essential within the meaning of the foregoing paragraph.

III. Each manufacturer will file with the Priorities Division of the War Industries Board a pledge in writing in the form following:

Priorities Division, War Industries Board, Washington, D. C.: The undersigned hereby pledges itself (1) not to use nor so far as lies within its power permit to be used any products of its manufacture now in or which may hereafter come into its possession or control save (*a*) for essential uses as that term has been or may be defined or applied from time to time by the Priorities Division of the War Industries Board, or (*b*) under permits in writing signed by or under authority of such Priorities Division; (2) that it will make no sale or delivery of any such products to any customer for resale until such customer has filed with it a similar pledge in writing, and that it will use its utmost endeavor to insure that its products shall be distributed solely for essential uses; (3) that it will observe and comply with all other and further rulings and orders of the said Priorities Division; (4) that it will make and render at such time or times as may be designated any report or reports concerning its production and activities as may be required by said Priorities Division of the War Industries Board.

IV. No manufacturer will sell or deliver any of its products to any customer for resale until such customer has filed with it a pledge in writing in the following form:

To .....: The undersigned hereby pledges itself not to use, nor so far as lies within its power permit to be used, any products of your manufacture now in or which may hereafter come into its possession or control save (*a*) for essential uses as that term has been or may be defined or applied from time to time by the Priorities Division of the War Industries Board, or (*b*) under permits in writing signed by or under authority of said Priorities Division; further, that it will make no sale or delivery of said product to any customer for resale until such customer has filed with the undersigned a pledge similar to this.

November 4, 1918.[1]—Conservation of building materials.

The War Industries Board issued a statement containing a list of building projects which in its opinion could be postponed for the period of the war. Among these were park improvements, sidewalks, moving-picture houses, theaters and other amusement places, public buildings, garages, gasoline stations, bank buildings, commercial enterprises and store buildings, hotels, office buildings, nonwar factories and mills, apartment buildings, churches, schools, grain elevators, gas and electric light plants, and water works improvements.

November 5, 1918.—Silos.

The War Industries Board ruled that silos costing less than $1,000 could be built without a special permit.

November 11, 1918.—Use of fuel in the production of building materials.

All limitations on the use of fuel in the production of building materials, including brick, cement, lime, hollow tile, and lumber were ordered removed by the Fuel Administrator.

---

[1] Date of publication in the Official Bulletin.

November 11, 1918.—Conservation of building materials.

Restrictions on all building and on many nonwar projects were modified. Construction projects falling within the following classification were approved and no permits or licenses required therefor:

1. Construction projects approved in writing by the Facilities Division of the War Industries Board.
2. All farm and ranch buildings, structures, or improvements.
3. All buildings, structures, roadways, plant facilities, or other construction projects of every nature whatsoever undertaken by the United States Railroad Administration, or by any rail or water transportation company, organization, or utility (whether or not under the direction of such administration), or by the American Railway Express Co., or by the owner or operator of any telegraph or telephone line.
4. The construction, maintenance, improvement, or development by Federal, State, or municipal authorities of highways, roads, boulevards, bridges, streets, parks, and playgrounds.
5. The construction, extension, improvement, maintenance, or repair of any public utility, including water-supply systems, sewer systems, light and power facilities, and street and interurban railways.
6. The construction, extension, or repairs of all irrigation and drainage projects.
7. Construction projects connected with the extension, expansion, or development of mines of every character whatsoever or connected with the production and refining of mineral oils and of natural gas.
8. The construction, alterations, or extensions of, or repairs, or additions to plants engaged principally in producing, milling, refining, preserving, refrigerating, or storing foods and feeds.
9. The construction of new or the alterations or extensions of existing schoolhouses, churches, hospitals, and Federal, State, or municipal buildings, involving in the aggregate a cost not exceeding $25,000.
10. The construction of new buildings or structures not embraced in any of the foregoing classifications, or the repairs or additions to, or alterations or extensions of, existing buildings and structures, in either case involving in the aggregate a cost not exceeding $10,000.
11. The construction of new buildings or structures not embraced in any of the foregoing classifications, or the repairs or additions to, or alterations or extensions of, existing buildings or structures, in either case involving in the aggregate a cost not exceeding $25,000; when approved in writing by the State Council of Defense or its duly authorized representative.
12. Buildings begun prior to September 3, 1918, where a substantial portion of the building has already been constructed.

All limitations on the production of building materials, including brick, cement, lime, hollow tile, and lumber were also removed, and the materials so produced allowed to be sold and delivered for use in connection with any building project for which no permit is required, or to any project authorized by permits or licenses issued in pursuance of said circular.

Restrictions upon industries and manufacturers in their production of, or in their consumption of materials for, commodities, hereafter enumerated, as such restrictions are expressed in orders and circulars issued by this division, are hereby so modified that such restrictions for the respective periods provided for in such several orders and circulars shall be less than the restrictions provided for in such orders and circulars to the extent of 50 per cent of such restrictions.[1]

The commodities referred to in which lumber is used are as follows: Agricultural implements and farm-operating equipment, including tractors, road machinery, refrigerators, ice-cream freezers, washing machines, clothes wringers, family sewing machines, step-ladders, talking machines (including motors and accessories), lawn mowers, sporting goods, pianos, including piano players, automatic pianos, and parts.

---

[1] That is to say, where the industry had been curtailed for a stated period a certain percentage of its production or its consumption of materials, such curtailment for such period was reduced to the extent of one-half of the curtailment expressed in such order or circular. To illustrate: Where an industry for the last 4 months of 1918 had been curtailed 25 per cent, such curtailment was changed to 12½ per cent for such period; where it had been curtailed 40 per cent, such curtailment was changed to 20 per cent; and where it had been curtailed 50 per cent, such curtailment was changed to 25 per cent.

Dealers (wholesale and retail) in raw materials and semifinished and finished products were relieved from the obligation to give and require pledges relating to such commodities, notwithstanding any provision for pledges in any order or circular that had been issued by the Priorities Division, and notwithstanding any stipulation in any pledge that they would require pledges from those who bought from them for resale; provided, however, building materials and other products were not to be sold and delivered for use in connection with any nonwar construction projects save those for which no permit or license was required under priority Circular No. 21, as revised, or those authorized by permits or licenses issued in pursuance of Circular No. 21; and provided, further, that manufacturers continued to give pledges in accordance with the terms of orders and circulars already issued, and complied with all pledges given, save that they were relieved from the provisions in such pledges as required them to exact pledges from those who bought from them for resale.

The Priorities Division of the War Industries Board, as far as practicable, agreed to assist industries in procuring materials, fuel, transportation, and labor to enable them to increase their operations to normal limits as rapidly as conditions warranted. Precedence would, however, be given to stimulate and increase the production of cargo ships and supply the requirements of the Army and the Navy, as well as to provide this Nation's proper proportion of the enormous volume of materials, equipment, and supplies required for the reconstruction and rehabilitation of the devastated territories of Europe. Precedence was also to be given to such activities as tend to stimulate the production of foods and feeds, of coal, of natural gas, of oil and its products, of textiles and clothing, and of minerals, and to provide for deferred maintenance, additions, betterments, and extensions of railroads, telegraph and telephone lines, and other public utilities, and to permit and stimulate the intensive development of inland waterways.

November 12, 1918.—Conservation of building materials.

The War Industries Board released a large number of building projects, the value of which exceeded $20,000,000. Included among these were projects for dwellings, farm buildings, small schoolhouses, irrigation enterprises, municipal improvements, and buildings for the production and storage of food supplies.

November 19, 1918.[1]—Lumber priorities.

Lumber priorities for the War Department were canceled.

Priorities for the Navy, Shipping Board, Emergency Fleet Corporation, and the Department of Labor's Bureau of Industrial Housing and Transportation were made equal. Lumber orders for railroads were given a priority rating higher than that given to any other class of orders, for the purpose of permitting construction delayed by the war.

November 21, 1918.—Conservation of building materials.

All remaining restrictions on nonwar construction were removed on this date.[2]

---

[1] Date of publication in Official Bulletin.
[2] Official Bulletin, Nov. 22, 1918.

December 2, 1918.

The Ordnance Department and the Bureau of Aircraft Production authorized walnut manufacturers to dispose of any part or all of their production for commercial purposes, thus withdrawing their request of March 28, 1918.

EXPORT RESTRICTIONS.

August 27, 1917.—The export control list extended.

By presidential proclamation the export control list of July 9, 1917, which prohibited exportation of food, fuel, fertilizers, iron and steel, ammunition, and explosives, was extended to include practically all articles of commerce that Germany and her allies or European neutrals might seek to import. The proclamation stated that, except at such time or times and under such regulations and orders and subject to such limitations and exceptions as the President prescribed, the articles listed, after August 30, 1918, should not be exported from the United States or its territorial possessions to Albania, Austria-Hungary, that portion of Belgium occupied by the military forces of Germany, Bulgaria, Denmark, her colonies, possessions and protectorates; Germany, her colonies, possessions, or protectorates; Greece, Leichtenstein, Luxembourg, the Kingdom of the Netherlands, Norway, Spain, her colonies, possessions, or protectorates; Sweden, Switzerland, or Turkey (excluding any portion of the foregoing occupied by the military forces of the United States or the nations associated with the United States in the war), or any territory occupied by the military forces of Germany and her allies.

The forest products mentioned were: Paper pulp, wood, and wood manufactures.

The proclamation further stated that, except at such time or times and under such regulations and orders and subject to such limitations and exceptions as the President should prescribe, certain articles should not after August 30, 1917, be exported from the United States or its territorial possessions to Abyssinia, Afghanistan, Argentina, that portion of Belgium not occupied by the military forces of Germany, or the colonies, possessions, or protectorates of Belgium, Bolivia, Brazil, China, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Egypt, France, her colonies, possessions, or protectorates; Guatemala, Haiti, Honduras, Italy, her colonies, possessions, or protectorates; Great Britain, her colonies, possessions, or protectorates; Japan, Liberia, Mexico, Monaco, Montenegro, Morocco, Nepal, Nicaragua; the colonies, possessions, or protectorates of the Netherlands; Oman, Panama, Paraguay, Persia, Peru, Portugal, her colonies, possessions, or protectorates; Roumania, Russia, Salvador, San Marino, Serbia, Siam, Uruguay, Venezuela (excluding any portion of the foregoing occupied by the military forces of Germany or her allies), or any territory occupied by the military forces of the United States or by the nations associated with the United States in the war.

The following forest products were mentioned in the above section of the proclamation:

Alcohol.
Ashes, hardwood.
Rosin.
Turpentine.
News paper.
Print paper.
Wood pulp.
Cellulose.
Ash.
Spruce.
Walnut.
Mahogany.
Oak.
Birch.

September 17, 1917.[1]—Export conservation list.

A list of commodities, export of which was practically prohibited, was issued by the War Trade Board. The only product of wood mentioned in the list was alcohol. Licenses were granted for these articles only when destined for actual war purposes or when they would contribute thereto and in certain other unusual cases.

October 3, 1917.[1]—List of articles not requiring export license.

The Exports Administrative Board issued a list of articles which were not to require an export license under the terms of the proclamation of August 27, unless destined to enemy countries and other countries mentioned in the first part of the above proclamation.

Beehive material and veneer boards are the only lumber products mentioned on the list of exempted articles.

October 22, 1917.[1]—Addition to articles requiring export license.

The War Trade Board issued a complete list of articles requiring license for export. The following forest products appeared on the list:

Wood:
- Ash.
- Birch.
- Mahogany.
- Oak.
- Spruce.
- Walnut.

Wood pulp.
Paper:
- Newsprint.
- Book.
- Pulp boards.

Rosin.
Rosin oil.
Shooks (if of wood specified in the proclamation of Aug. 27, 1917).
Staves (if of wood specified in the proclamation of Aug. 27, 1917).
Turpentine.
Turpentine, crude.
Alcohol.
Cellulose.

On the same day a list of additions to the export conservation list was issued. The only product of wood to appear on this was China wood oil.

February 16, 1918.—All exports put under regulation.

By presidential proclamation it was prescribed that no commodities of any kind might be exported to any country in the world "except under license granted in accordance with regulations or orders and subject to such limitations and exceptions as have heretofore been or shall hereafter be prescribed."

Forest products mentioned were:

Fuel.
Tanning materials.
Paper pulp.
Gums.
Rosins.
Tars.
Wood and wood manufactures.

April 13, 1918.[1]—The export conservation list revised.

A revision of the export conservation list was issued by the War Trade Board, effective April 15, 1918. In accordance with the provisions of this revised list the need for individual export licenses for various commodities was abolished on shipments to Canada and Newfoundland. Forest products were not mentioned among them.

[1] Date of publication in the Official Bulletin.

The list on which there was a continuance of the license requirement included the following forest products:

Acetate.
Acetic acid.
Alcohol, wood.
Ashes, hardwood.
Ax handles made from ash wood, birch wood, hickory wood, and oak wood.
Book paper.
Cars (railway).
Charcoal.
Chestnut extracts.
China wood oil.
Handles, ax, hoe, pick, rake, sledge, shovel, spade, made from ash wood, birch wood, hickory wood, and oak wood.
Oil of sandalwood.
Quinine.
Quebracho wood.
Quebracho extract.
Maple sirup.
Staves:
- Ash.
- Birch.
- Mahogany.
- Oak.
- Walnut.

Shooks:
- Birch.
- Mahogany.
- Oak.
- Walnut.

Lumber:
- Ash.
- Birch.
- Chestnut.
- Fir timber.
- Mahogany.
- Spruce.
- Oak.
- Walnut.
- Yellow pine measuring 12 by 12 inches and larger size, 25 feet long and longer.

Paper:
- Book.
- Newsprint.
- Poster.
- Print.

Wood:
- Ash.
- Birch.
- Fir.
- Mahogany.
- Oak.
- Spruce.
- Veneer or plywood of all kinds.
- Walnut.

May 13, 1918.[1]—Export regulations adopted by the War Trade Board to provide against the manufacture of goods not needed by the Allies.

Additional rules and regulations were announced to cover the issuance of licenses to export any commodity to the United Kingdom, France, Italy, and Belgium (excluding their respective colonies, possessions, and protectorates). They contained instructions to applicants for licenses, disposition of copies of applications, forms to be used and schedule A as of May 13, 1918.

Exporters of * * * and shippers of articles contained in schedule A will also be required to agree that after export licenses have been issued they will not make any purchase, nor take any steps in the process of producing, manufacturing, or fitting for export the articles specified in the application unless they first obtain the approval of the United States Food Administration or of the United States War Industries Board.

Under schedule A there is listed "Lumber, all kinds."

September 21, 1918.

Export Conservation List, containing additions and modifications, issued and effective September 21, 1918, read in part:

* * * All commodities covered by the Export Conservation List require individual licenses when shipped to all countries, including Canada and Newfoundland, except when specifically stated to the contrary in the list. Collectors of customs have no authority to issue licenses even for small amounts of these commodities, and consequently individual licenses must be procured for all destinations.

Commodities not covered by the Export Conservation List may be shipped to Canada and Newfoundland without individual export licenses. A special export license number RAC–8 has been issued to the customs service authorizing collectors of customs to allow such shipments to be exported without individual export licenses provided

[1] Date of publication in the Official Bulletin.

each shipment is accompanied by shipper's export declaration (Customs Cat. No. 7525, Form WTB 105) in quadruplicate.[1]

The Export Conservation List of September 21 specifically mentions the following wood products:

Acetate.
Acetate acid and its derivatives.
Alcohol.
Ashes, wood.
Ax handles, made from ash wood, birch wood, hickory wood, and oak wood.
Balata.
Bark, cinchora and products.
Barrel heads (oak, ash, birch, walnut).
Extract as follows:
  Chestnut.
  Quebracho.
  Oil for tanning hides.
Handles, ax, hoe, pick, rake, sledge, shovel, spade, made from ash wood, birch wood, hickory wood, and oak wood.
Hoe handles made from ash wood, birch wood, hickory wood, and oak wood.
Logs.
Ash wood.
Birch wood.
Chestnut wood.
Fir timber.
Mahogany wood.
Maple sirup.
Oil of sandalwood.
Paper:
  Book.
  Newsprint.
  Poster.
  Print.
Cars (railway).
China wood oil.
Artificial silk.
Oak wood.
Plywood and veneer of all kinds.
Quebracho wood.
Spruce wood.
Walnut wood.
Yellow pine measuring 12 by 12 inches and larger size, or 25 feet long and longer.
Plywood.
Shooks, birch, mahogany, oak, walnut.
Staves, ash, birch, mahogany, oak, walnut.

October 10, 1918.[2]—Wood pulp added to export conservation list.

The War Trade Board announced that, effective October 10, 1918, wood pulp was added to the Export Conservation List, November 30, 1918.[1] Export of dunnage, War Trade Board amends regulations in regard to.

Paragraph VI to "General Rules No. 1," governing the granting of licenses for port, sea, and ship's stores and supplies, was amended as follows:

No dunnage shall be allowed to proceed out of the country on any vessel except under license of the War Trade Board, either as ship's stores or as cargo. No application for "bunkers" of any vessels shall be granted unless such dunnage as she may have aboard is so licensed. Vessels will not be permitted to clear with dunnage unless properly covered either by export or bunker license. If declared as ship's stores, dunnage can not be discharged at any foreign port or transferred to any other vessel without special permission from the bureau of transportation.

That portion of the ruling pertaining to lumber was as follows:

Dunnage (lumber and wood) as per following list only: Poplar, gum, white pine, yellow pine (under 12 by 12 inches, 25 feet long), cottonwood, hemlock; staves, shooks, heads, made of red or white oak; staves, shooks, heads, made of ash; which is intended solely for use as dunnage aboard vessels on which shipped and not for commercial use abroad will be licensed in usual and reasonable quantities under bunker licenses.

December 18, 1918.—Removals from export conservation list.[3]

The following forest products were removed from the Exports Conservation List, effective December 18, 1918:

Acetate of cellulose.
Acetic acid.
Wood ashes.

---

[1] Official Bulletin, Sept. 24, 1918.
[2] Date of publication in Official Bulletin.
[3] Official Bulletin, Dec. 18, 1918.

December 21, 1918.[1]—Export of pecky cypress permitted as dunnage.

In a new ruling pecky cypress was added to the several kinds of woods listed on November 30, 1918, which might be licensed in usual and reasonable quantities, under bunker licenses, when intended solely for use as dunnage aboard vessel on which shipped, and not for commercial use abroad.

December 23, 1918.—Removals from Export Conservation List.[2]

The following forest products were removed from the Export Conservation List, effective December 23, 1918:

All tanning extracts except chestnut and quebracho.
Maple sugar.

December 30, 1918.[1]—Export Conservation List removals and modifications.

The following removals of lumber and forest products from the Export Conservation List were ordered effective January 4, 1919:

Ash wood.
Balata.
Birch wood.
Chestnut wood.
Fir timber.
Logs.
Lumber.
Mahogany wood.
Oak wood.
Plywood and veneers of all kinds.
Pulp wood.
Quebracho wood.
Timber.
Walnut wood.
Yellow pine, measuring 12 by 12 inches and larger sizes, or 25 feet long and longer.
Spruce wood.
Paper: Book, poster.

January 7, 1919.[1]—Removals from Export Conservation List.

The following forest products were removed from the Exports Conservation List, effective January 7, 1919:

Paper: Newsprint. print.
Tanning extracts: Chestnut. quebracho.

IMPORT RESTRICTIONS.

February 14, 1918.—Imports proclamation.[3]

By Presidential Proclamation, on and after February 16, 1918, all imports were prohibited "except under license granted in accordance with regulations or orders and subject to such limitations and exceptions as have heretofore been, or shall hereafter be, prescribed."

The forest products mentioned in this proclamation were:

Fuel.
Tanning materials.
Paper pulp.
Gums.
Rosins.
Tars.
Wood and wood manufactures.

March 23, 1918.—First list of restricted imports issued by War Trade Board under the Trading-with-the-Enemy Act.

As a result of the Proclamation issued by the President on February 14, 1918, requiring an import license for all articles from all countries, the War Trade Board issued the first list of restricted imports and stated the terms under which licenses for certain articles would be granted. The publication of this list did not relieve importers from the necessity of applying for a license to import articles

[1] Date of publication in Official Bulletin.
[2] Official Bulletin, Dec. 23, 1918.
[3] Official Bulletin, Feb. 15, 1918.

not on the list, since all commodities required an import license except such as were permitted to be imported under general licenses. Forest products mentioned were:

Cars, carriages, and other vehicles.
Musical instruments and parts.
Pencils.
Penholders.
Phonographs: Gramophones, graphophones and parts.
Artificial silk and manufactures thereof.
Tar and pitch of wood.

April 30, 1918.—Agreement with Norway.

The War Trade Board entered into an agreement with the Norwegian Government relating to exports from the United States to Norway during the continuance of the war. In consideration of the United States furnishing to Norway certain quantities of products specifically mentioned, the Norwegian Government agreed to authorize and permit the export, free of export tax, of certain commodities to the United States or to any of the countries associated with the United States in the war.

Among these were the following forest products:

Wood and manufactures of wood; round timber, mainly pit props, sawn planed wood, pulp (dry), chemical pulp (cellulose), paper, and matches.

The quantities which it was estimated would be available for export to the United States or to the countries associated with the United States in the war were as follows (quantities estimated in metric tons):

Wood and manufactures of wood: Round timber, mainly pitprops, 150,000 tons; sawn planed wood, in all, 400,000 tons; pulp (dry weight), 125,000 tons; chemical pulp (cellulose), 200,000 tons; paper, 125,000 tons; matches, 5,000 tons; total, 1,005,000 tons.

September 13, 1918.—Import of mahogany logs and lumber prohibited except for Government use.

War Trade Board Ruling No. 222 revoked all outstanding licenses for the importation of mahogany logs and mahogany lumber as to ocean shipment after September 10, 1918. Thereafter no licenses for the importation of these commodities were to be issued except to cover such shipments as the Director of Lumber of the War Industries Board should certify to be suitable and necessary for Government use.

September 30, 1918.[1]—New general import license, effective after October 1, 1918.

The War Trade Board announced in a ruling (W. T. B. R. No. 224) the issuance of a new general import license, to be known as P. B. F. No. 27, which was effective for shipments made on or after October 1, 1918. This license covered the importation into the United States from the United Kingdom, France, and Italy, or their European or Mediterranean African possessions or protectorates, of all commodities, except those enumerated, provided the specific goods sought to be imported originated in said countries, or in said possessions or protectorates.

Among the articles excluded from the terms of this license were mahogany logs and lumber.

[1] Date of publication in Official Bulletin.

October 18, 1918.[1]—Import of balsa wood restricted.

The War Trade Board (W. T. B. R. No. 273) placed restrictions upon the importation of balsa wood and other light woods usually designated as balsa wood. All outstanding licenses were revoked as to ocean shipment from abroad after October 10, 1918, and no further licenses were to be issued, except to cover shipments made from abroad on or before October 10, 1918, shipments from Canada or Mexico by other than ocean transportation, shipments from Europe or Mediterranean Africa when coming as return cargo from convenient ports where loading could be done without delay, and shipments not covered by the above provisions to a total of not to exceed 1,600,000 board feet.

October 19, 1918.[1]—Import license changes on goods from England, France, and Italy.

This statement contained some slight alterations of the list announced as effective October 1, 1918. The forest products not included under the terms of this general import license, P. B. F. No. 27, are given in the following list, classified under the paragraphs of the tariff act of 1913, as referred to therein (W. T. B. R. No. 244).

Balsa wood, including ceiba and other light woods, is classified under paragraphs 464, 647, or 648.

Mahogany logs and lumber: All mahogany classified under paragraphs 169 and 648.

Dyewoods, classified under paragraphs 30, 477, 492, and 624.

Tanning material and substance from which it can be extracted, classified under paragraphs 30, 211, 385, 477, 492, 553, 618, 624, and 639.

Trees, classified under paragraphs 211 and 385.

October 21, 1918.[1]—License for importing wood revoked as to ocean cargoes.

The War Trade Board, by a new ruling, extended the restriction upon the importation of wood to include all woods, except those imported from Mexico or Canada by other than ocean transportation, and from Europe or Mediterranean Africa under the back-haul privilege. All outstanding licenses for the importation of wood, except cedar, as specified in or classified under paragraph 647 of the tariff act of 1913, were revoked as to ocean shipment made after October 25, 1918; and thereafter no licenses were to be issued for the importation of such woods, except cedar, and except to cover the following:

1. Shipments from Mexico or Canada by other than ocean transportation when such commodities originated in such countries.

2. Shipments from Europe or Mediterranean Africa when coming as return cargo from convenient ports where loading could be done without delay.

November 13, 1918.[1]—Import ruling on balsa wood interpreted by War Trade Board.

The War Trade Board announced that they did not construe balsa wood as included in the restriction announced October 21, 1918. That ruling was therefore amended so as to except balsa wood as well as cedar.

---

[1] Date of publication in Official Bulletin.

December 12, 1918.[1]—New War Trade Board ruling on imports from Canada.

The War Trade Board announced (W. T. B. R. No. 392) that the restrictions on the importation of wood had been modified to permit the issuance of licenses for the importation of all wood described in the rulings of October 18, October 21, and November 13 (W. T. B. R. Nos. 273, 284, 318), when originating in Canada and coming by any means of transportation. Import licenses, therefore, might thereafter be issued for ocean shipments from Canada. December 16, 1918.[1] A ruling of the War Trade Board (W. T. B. R. No. 403) permitted shipments of restricted commodities originating in Canada and shipped on Puget Sound steamers. Forest products mentioned as excepted are as follows:

Acetate of lime.
Acetone.
Acetic acid.
Methyl acetate.
Wood alcohol.

December 20, 1918.[1]—Removal from list of restricted imports.

Trees were taken off the List of Restricted Imports No. 1.

December 26, 1918.[1]

The following forest products were removed from List 2 of Restricted Imports No. 1:

Agricultural implements.
Acids (all acids).
Artificial silks and manufactures thereof.
Musical instruments and parts..
Pencils.
Penholders.
Phonographs, gramophones, graphophones, and parts.
Tar and pitch of wood.

January 6, 1919.[1]

The ruling of October 18, 1918 (W. T. B. R. No. 273), restricting the importation of balsa wood and that issued November 13, 1918 (W. T. B. R. No. 318), restricting the importation of wood as classified under tariff paragraph 647 were revoked.

January 2, 1919.[1]

Forest products as follows were removed from Lists of Restricted Imports 1 and 2:

Baskets of wood or compositions of wood.
Furniture.
Paper and manufactures thereof.
Crude paper stock.
Quebracho wood.

January 9, 1919.[1]

All restrictions were removed on tanning materials and all substances from which tanning materials can be extracted.

January 30, 1919.

Restrictions were removed on all imports from the United Kingdom, France, Italy, and Belgium and their European and Mediterranean African possessions and protectorates of all commodities except a few specifically mentioned. No forest products were excepted.

[1] Date of publication in Official Bulletin.

LUMBER PRICE MOVEMENT.

GENERAL PRICE MOVEMENT PREVIOUS TO 1913.

The movement of lumber prices previous to 1913 has not been studied exhaustively so far. The main work on this was done by Compton, who published his conclusions in 1916.[1] He points out that two distinct but similar cycles of movement are evident, one covering the period from 1860 to 1880, and the other from 1880 to 1916. Each of these is characterized during the early years of the period by a higher rate of increase in relative lumber prices than in prices for general commodities, followed by a decline in which lumber prices move up or down in a gradually decreasing ratio as compared with general prices, so that ultimately the two sets of values approach a common level. A series of index numbers, prepared by Compton, show the trend of prices during this period.[2]

The lowest relative price in the series was in 1860, when the index number was 40.5. A marked rise occurred during the next few years, reaching 101.2 in the first quarter of 1866. Only once previous to 1901, namely, during the first and second quarters of 1866, did the index number reach as high as the base level of 1901 to 1903. Since 1901 the index numbers have always been in excess of 100.

The price curve shows a few sharp changes, but in general its rise and fall have been fairly regular. Following the period of rapid increase ending in the first quarter of 1866, lumber prices gradually fell to 78.5 in the fourth quarter of 1867. Prices rose to 84.4 in the third quarter of 1870, going to 87.4 during the first quarter of 1871 and continuing at approximately this level until the third quarter of 1872. They fell to 67 in 1879, the lowest point reached since 1860 and not again equaled until the last quarter of 1896, in which they reached 65.36, and the second quarter of 1897, when they were at 65.33. The index number of 1879 was 67 and that of 1883 was 88, a point which was not again reached until the last quarter of 1899. From 1883 to the third quarter of 1897 prices gradually fell from 88 to 64.52, rising to 72.76 in the second quarter of 1898, and remaining nearly constant at that point until the first quarter of 1899, when another rise began, which culminated at 134.83 during the first quarter of 1900. Following that date the index numbers again rose with minor fluctuations to the highest point in the series, namely, 150.32, in the third quarter of 1907. A marked drop in relative prices then ensued until the third quarter of 1908, when 112.21 was reached. From that time on until 1913 the general trend was upward, the index reaching 145.3 in the third quarter of 1912 and 144 in the fourth quarter of 1912.

A comparison of the curve of lumber price movement with that for general commodities [3] discloses the fact that lumber prices throughout the entire period have tended to increase at a somewhat faster rate

---

[1] "The Organization of the Lumber Industry," by Wilson Compton, in American Lumberman, Chicago, 1916. See also: "Determinants of Lumber Prices," by George A. Stephens, in American Economic Review, Vol. VII, No. 2, June, 1917.
"Price Problems in the Lumber Industry," by Wilson Compton, in American Economic Review, Vol. VII, No. 3, September, 1918.

[2] The base prices used in the computation of the index were those for the period from 1901 to 1903, inclusive. The values of various grades of white pine, southern yellow pine, hemlock, Douglas fir, eastern spruce, oak, redwood, North Carolina pine, cypress, western pine, maple, poplar, and cedar were used. For details see "The Organization of the Lumber Industry," pp. 144–148.

[3] Data for the general-commodity curve used by Compton for the period 1860 to 1890 were taken from the Senate (Aldrich) Finance Report of 1893 and those since 1890 from the Bureau of Labor Statistics series for "all commodities."

than prices for general commodities, although in certain periods there has been a rather marked divergence between them. During the period from 1860 to 1873 the relative price of lumber increased at an average annual rate in excess of that for general-commodity prices. From 1873 to 1880 lumber prices increased at an annual rate of only 0.1 per cent greater than general prices. Another marked increase in lumber prices, as compared with general prices, occurred during the period from 1880 to 1907, the average annual divergence being 2.9 per cent. From 1907 to 1913 relative lumber prices continued to rise faster than general prices, but the annual rate had fallen to 2.4 per cent, suggesting a gradual return to the general relations which existed during the period of 1873 to 1880.

The apparent departure in the lumber price movement from that of general commodities is probably due to some factors peculiar to the lumber industry. It is significant that the divergencies of relative lumber prices from those for general commodities have occurred during periods when there was evidence of a shift of the center of lumber production because of a relative scarcity of raw material (stumpage) in a given locality, due both to exhaustion of near-by supplies and to an increased general demand. Thus the relatively rapid increase in lumber prices as compared with general prices during the sixties came at a time when the lumber industry was developing from local to national importance and when the centers of production in the northeastern States could no longer meet the demands made upon them. The lumber industry, therefore, began to move farther away from the consuming centers, where there was a relative scarcity of raw material, to the interior of Maine and other New England States, to the more remote parts of New York and Pennsylvania, and to the pineries of the Lake States.

The centers of population and of maximum consumption were also moving westward, which for the time being moved the chief national markets to more distant points. Thus, the center of population between 1850 and 1870 moved from Parkersburg, W. Va., to Cincinnati, Ohio, while the center of lumber production was in New York and Pennsylvania.

The haul to market, therefore, becoming greater, the transportation costs rose and became a more important factor in the wholesale price of lumber. Although there was an abundance of raw material still in in the country at large, the supply of manufactured material in proximity to the markets was relatively scarce, and because of this fact a comparatively rapid rise in price was to be expected and actually did occur. No such marked tendency was exhibited by commodities in general, because there was not a similar shift in the sources of the raw material required by the industries using them.

The second period in which lumber prices showed a tendency to increase at a relatively higher rate than general commodity prices began about 1880. The center of lumber production had, since 1870, moved westward to the Lake States and the center of population to Indiana, thus causing a new readjustment in the distribution of lumber. The tendency evident about 1880 to a greater relative increase in lumber prices than in general prices was coincident with the early phases of a gradual shifting of the center of lumber production to the South. The output of the Lake States region was rapidly

approaching its maximum, and a relative shortage of lumber in the main producing regions was again foreseen.

The present cycle has been of longer duration than the first, probably because the volume of raw material available in the South and the rapid development of transcontinental transportation has lengthened the period during which a marked change in the production center was brought about. The index numbers of lumber prices and general prices show less divergence since 1907 than they did during the period from 1880 to 1907, and the general relations between the two are more nearly comparable to those existing during the period from 1873 to 1880 than to any other.

Within 10 years we may expect a movement of the center of production from the South to the Northwest, with a relative decrease in supply within the great prairie consuming regions. If lumber prices again respond to a shift of the producing center, as they appear to have done in the past, we may expect that the lumber-price curve will again diverge from the general-commodity curve, with a corresponding relative increase in the price of lumber.

The studies so far made point to the existence of a vital relation between the price movement and the source of timber supply, and it is, therefore, of great importance that the subject be investigated in an exhaustive manner in order that the future trend of prices may be anticipated.

GENERAL LUMBER PRICE MOVEMENT FROM 1913 TO 1919.

During this period lumber prices exhibited two tendencies. There was a drop in price from 1913 through the fourth quarter of 1914, this level holding through the third quarter of 1915. A marked rise then followed which, with one exception, continued through the second quarter of 1918, when prices again began to fall. This exception was the falling of prices during the second and third quarters of 1916. Another exception to this general tendency was displayed by the higher grades of certain hardwoods, such as firsts and seconds of ash and hard maple, and by certain grades of softwoods, such as selects C and better 5/4 of eastern white pine and random grades in eastern spruce, all of which showed little or no decrease in price during the six years.

The drop in relative lumber prices during the years 1913 and 1914 was fairly uniform, the index number of the second quarter of 1913 being 111, that of the fourth quarter, 99; that of the fourth quarter of 1914, 91; and that of the third quarter of 1915, 91, which was the lowest point touched during the 6-year period.[1] Compared with this, the index numbers for the "all commodities" group were 100 for the second quarter of 1913, 102 for the fourth quarter, 98 for the fourth quarter of 1914, and 102 for the third quarter of 1915.[2]

The "all commodities" group during the second and fourth quarters of 1914 fell below the level of the second quarter of 1913, and by the third quarter of 1915 had again reached the level for the first quarter of 1913, while lumber in the meantime was 20 points below the index number of the second quarter of 1913.

---

[1] The index numbers for lumber were prepared from the prices of those species included in this bulletin, namely, southern yellow pine, Douglas fir, eastern spruce, eastern hemlock, eastern white pine, ash, oak, hard maple, chestnut, birch, yellow poplar, hickory, and gum. The base price on which the relatives were computed was the average price for the period from July, 1913, to June, 1914.

[2] The index numbers for all commodities were taken from the Bureau of Labor Statistics.

The "building materials other than lumber" group [1] reflected tendencies similar to those of the lumber group, although the price depression was less pronounced. The lowest point reached was during the third quarter of 1915, the relative price having declined from 101 during the second quarter of 1913 to 94 in the third quarter of 1915. Values remained stationary at 100 during the first three quarters of 1914, gradually declining from the next quarter until the lowest point was reached.

The rise in the price of lumber subsequent to the third quarter of 1915 continued through the first quarter of 1916 when the index number reached 111, or 20 points rise during the two quarters. The "building materials other than lumber" group and "all commodities" showed a parallel rise of 16 points.

TABLE 4.—INDEX NUMBERS OF PRICES OF LUMBER, BUILDING MATERIAL OTHER THAN LUMBER, AND ALL COMMODITIES.

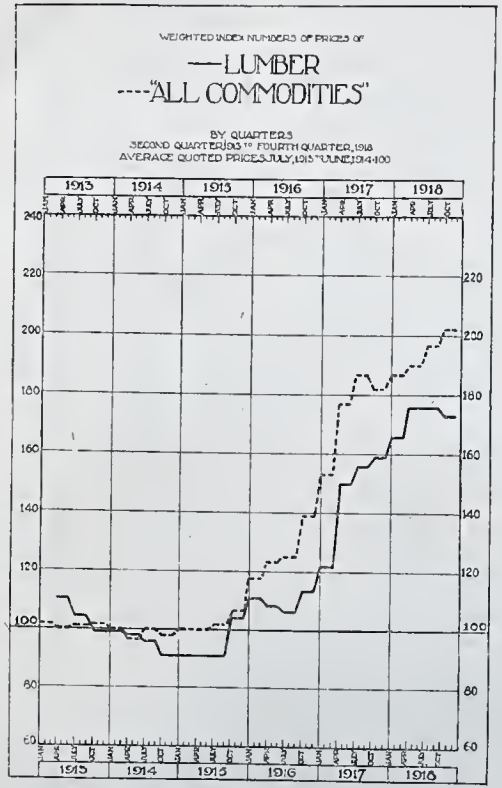
Quarters.	Lumber.[2]	Building material other than lumber.	All commodities.[1]	Quarters.	Lumber.[2]	Building material other than lumber.	All commodities.[1]
1913:				1916:			
First	.....	101	102	First	111	110	118
Second	111	101	100	Second	108	112	123
Third	104	101	101	Third	106	116	125
Fourth	99	100	102	Fourth	113	121	139
1914:				1917:			
First	99	100	100	First	122	131	152
Second	98	100	97	Second	150	138	177
Third	96	100	100	Third	156	140	187
Fourth	91	99	98	Fourth	159	140	182
1915:				1918:			
First	91	97	100	First	166	154	187
Second	91	95	100	Second	176	172	190
Third	91	94	102	Third	176	189	197
Fourth	104	101	107	Fourth	173	.....	202

[1] Index number of Price Section, War Industries Board. [2] From Table 6, pp. 83–91.

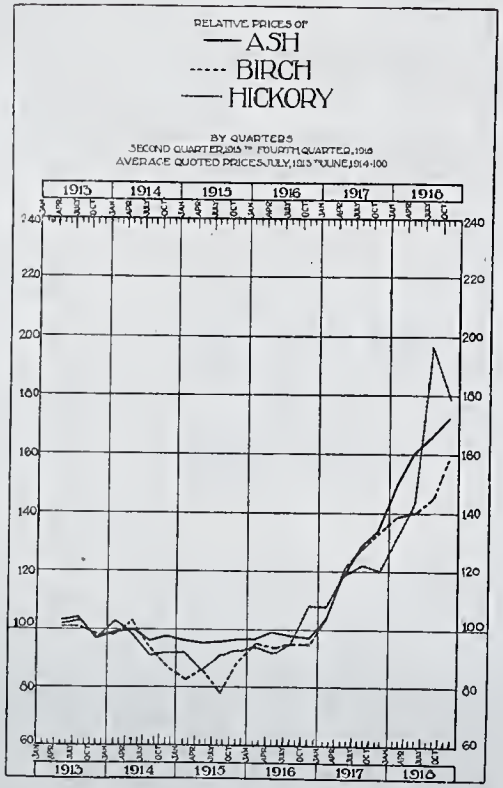
During the second and third quarters of 1916 lumber prices dropped five points, while those for the other two groups above mentioned continued to rise, although at a rate somewhat less than during the two previous quarters. The contrast between the movement of prices of the two groups of building materials—lumber, and building materials other than lumber—during 1916 makes it evident that factors other than building conditions in the country must have played a part in depressing the price of lumber and not that of building materials other than lumber. During the two quarters in which lumber prices were falling, the lumber industry was faced not only with a decreased demand for lumber but also with one of the most serious car shortages in the history of the lumber business, and, as a result, with an overproduction of material which caused a more or less demoralized condition in the industry.

In the fourth quarter of 1916 the index number of lumber had risen to 113, two points higher than the values during the second quarter of 1913. During 1917 lumber prices rose at a very rapid rate, the gain in value exceeding that for any other year of the 1913–1918 period. The index number of lumber during the last quarter

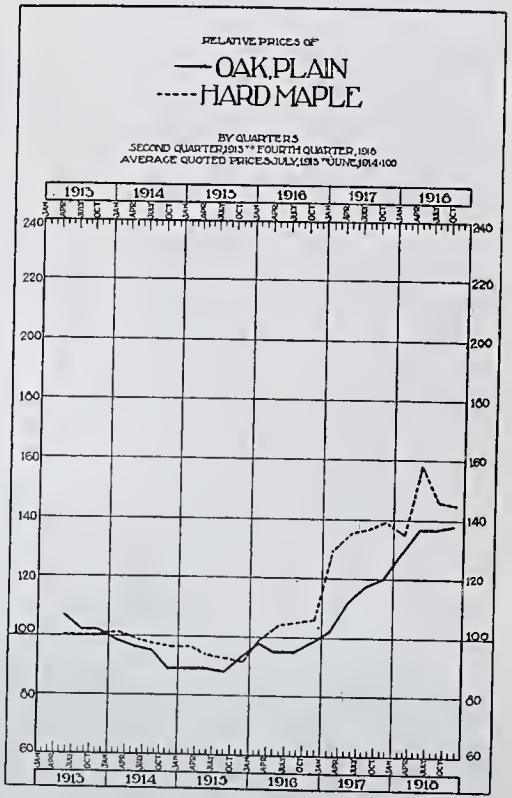
[1] Based on a series of index numbers prepared by the Price Section Bureau of Planning and Statistics, War Industries Board.



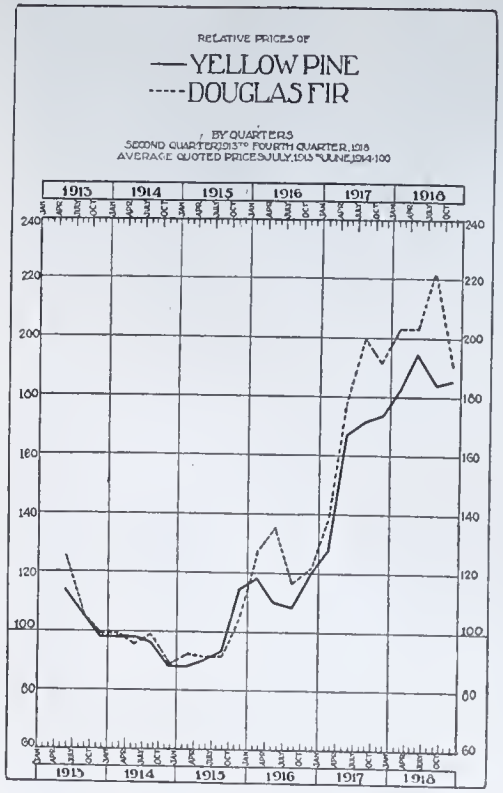
WEIGHTED INDEX NUMBERS OF PRICES.—Lumber; and "All Commodities"—By quarters, second quarter, 1913, to fourth quarter, 1918. (Average quoted prices, July, 1913, to June, 1914=100.)



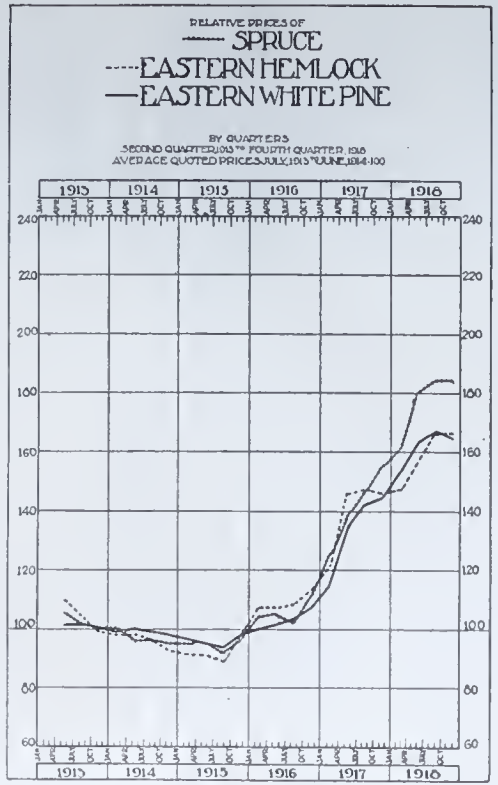
RELATIVE PRICES.—Ash; Birch; and Hickory.—By quarters, second quarter, 1913, to fourth quarter, 1918. (Average quoted prices, July, 1913, to June, 1914=100.)



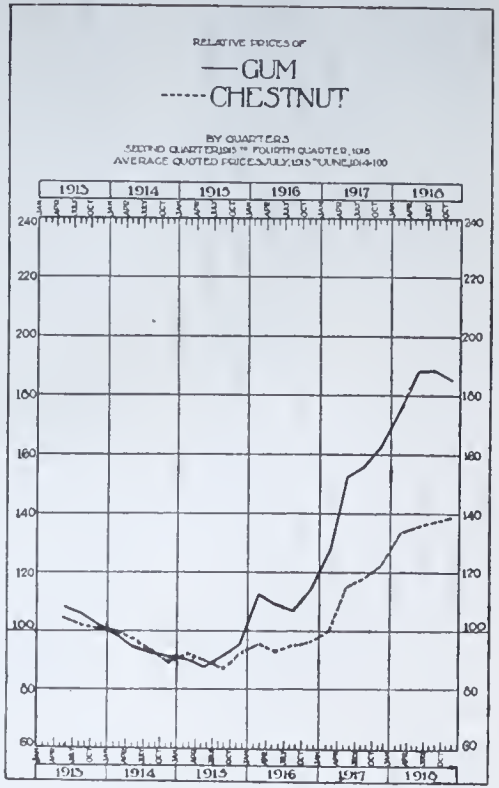
RELATIVE PRICES.—Oak, plain; and Hard Maple.—By quarters, second quarter, 1913, to fourth quarter, 1918. (Average quoted prices, July, 1913, to June, 1914=100.)



RELATIVE PRICES.—Yellow pine and Douglas fir.—By quarters, second quarter, 1913, to fourth quarter, 1918. (Average quoted prices, July, 1913, to June, 1914=100.)



RELATIVE PRICES.—Spruce, eastern hemlock, and eastern white pine.—By quarters, second quarter, 1913, to fourth quarter, 1918. (Average quoted prices, July, 1913, to June, 1914=100.)



RELATIVE PRICES.—Gum and Chestnut.—By quarters, second quarter, 1913, to fourth quarter, 1918. (Average quoted prices, July, 1913, to June, 1914=100).)

was 159, or 46 points rise during the year, while for building materials other than lumber the gain was 19 points, and for all commodities, 43 points. The "building materials other than lumber" group showed no change in value from the third to the fourth quarter, and the "all commodities" group dropped five points, lumber reflecting this tendency by a slight lessening of the rate of price increase. The difference in the action of the two groups of building materials during this quarter was probably due to a slackening of building-trade activity, which affected building materials other than lumber, but had only a minor effect on lumber itself because of the greatly increased demand on the surplus lumber stocks of the country for military purposes.

Lumber prices continued to rise uninterruptedly through the second quarter of 1918, when the highest relative value of the 6-year period was reached, namely 176. Building materials other than lumber had risen during the same period to 189 and all commodities to 197.

The maximum price of lumber during the 1913–1918 period which was reached during the third quarter of 1918 was 58 per cent above that prevailing during the second quarter of 1913. Building materials other than lumber during this time had risen 87 per cent and "All commodities" group 97 per cent, the latter going to 102 per cent during the fourth quarter.

In the last quarter of 1918 lumber prices dropped to 172, the "all commodities" group value rising 5 points. All kinds of lumber did not exhibit the downward tendency during the last quarter of the year. For example, all grades of ash, F. A. S. and saps or selects 4/4 yellow poplar, F. A. S. hard maple, and the three highest grades of birch, all continued to rise, while most grades of eastern white pine, eastern hemlock, eastern spruce, southern yellow pine, gum chestnut, and No. 1 common hickory remained more or less stationary. A drop in price occurred in Douglas fir, F. A. S. 4/4 plain oak, and the low grades of hard maple and birch.

The following brief statement covering the period from 1913 to 1918, inclusive, shows the general conditions which confronted the lumber industry and explains in part the reasons for the course followed by lumber prices.

The year 1913 opened with promise to the lumber industry because the volume of trade and the prices received during 1912 had met expectations, and many orders had been carried over from the latter part of 1912 for early delivery in 1913.

The volume of purchases by the building trades during the early months of 1913 was satisfactory, with a fairly brisk demand by railroads and a heavy export movement on the Pacific coast.

In April a marked falling off in general demand was evident and was accompanied by a downward movement in lumber prices. Buyers, in anticipation of a drop in price, were purchasing only for immediate needs. Railroad purchases also had declined because of the difficulty of financing improvements and extensions.

In 1913 the value of building permits for the country fell approximately 12 per cent, railroad consumption was reduced 50 per cent, and the total lumber demand was about 23 per cent below normal. Notwithstanding this decrease in demand, curtailment of production went slowly into effect with the result that a surplus of stocks accumulated at the mills. A marked desire to move lumber was evidenced

by price cutting and by the increase in the number of "transit" cars that were started toward the larger markets.

Lumber prices during the last four months of 1913 were extremely unsatisfactory and those for yellow pine approached the low price level prevailing in 1908.

Uncertainty as to what attitude the democratic administration would take toward a lumber tariff caused uneasiness in the industry, but it is doubtful if the tariff act which went into effect in October, 1913, and which placed lumber on the free list had much influence on lumber prices, since no large increase in lumber imports from Canada followed the passage of this act. Even in normal times lumber imports from Canada do not exceed 3 per cent of our total annual production. The presence or absence of tariff import duties is regarded as of little moment by the lumber trade, except possibly in those regions adjacent to the Canadian producing centers.

Although there was some improvement in financial conditions in the country during the early part of 1914, railroad purchases of lumber continued on a very small scale, and spring building activities were below normal, so that the two heaviest consuming industries did not call for the usual volume of lumber. Favorable crop reports issued in April, May, and June did not have any marked effect in stopping the price decline, although the downward trend of southern yellow pine prices was somewhat less rapid.

Business conditions failed to improve as summer approached, and when in August, war was declared, the financial uncertainty had a marked reaction on lumber sales, buyers of all classes limiting their purchases to immediate needs. City retail yards allowed their stocks to be reduced to the minimum because of building inactivity which reached the lowest level in five years. Another serious blow was the stoppage of the export lumber movement which threw the export mills into competition, in a badly demoralized domestic market, with the interior mills which throughout the year had been suffering from overproduction.

The year witnessed a decrease in production on the West Coast of 15 per cent over 1913, 88 mills showing a reduction in cut of nearly 600 million feet. The reduction in cut in the southern pine region was approximately 2 per cent as compared with 1913, the stocks at 158 mills showing an accumulation during the year of about 113 million feet.

Although there was some drop in wages and producing costs, the profits of the industry were less than for some years previous. A study of the operations of 108 firms in the southern pine region made by the Forest Service showed that, although they cleared about 8 per cent on the total investment in timber utilized during 1914, they lost 5.8 per cent on their operating investment, aside from the interest paid on indebtedness. Their operating losses were partly offset by returns from other sources than sales of lumber—commissaries, rent, lath, shingles, and other by-products. Nineteen operations cutting nearly 2 billion feet showed net returns from the above sources averaging 54 cents per thousand. [1]

[1] See "Some Public and Economic Aspects of the Lumber Industry: Studies of the Lumber Industry Part I," by W. B. Greeley, U. S. Department of Agriculture, Report No. 114, Washington, 1917.

A similarly unsatisfactory condition faced the industry in every region, and failures in the lumber business were numerous, especially on the West Coast. The low level of lumber prices during this year may be directly attributable to two factors, namely, low demand and excess production. The first was due to the marked disturbance of business conditions with the consequent curtailment of all industrial activities into which wood entered, and the second, to the unsound basis on which the lumber industry is financed, forcing production without regard to market demands.

Prices during the first three quarters of 1915 showed but little change from those prevailing during the last quarter of 1914. Throughout the country at large there had been a growing accumulation of stock from March, 1913, until September, 1915, and it was not until business activity became greater throughout the United States that the movement of lumber exceeded the cut, even though the latter was below normal. The reported cut for the years 1913, 1914, and 1915 was 2 per cent, 4.7 per cent, and 5.6 per cent, respectively, under the 1912 production, showing a gradual reduction in the face of a falling market.

The rapid stimulation of business confidence by European trade did not begin to manifest itself in an increase in lumber prices until the latter part of the year 1915, although railroads during the last two quarters began to make larger purchases of lumber for car building and repair. There was also marked activity in the construction of buildings for industrial purposes, a great revival in furniture manufacture and other woodworking lines, and a strengthening of the demands for export lumber coming from the military branches of European governments. The requirements of the ordinary building trades increased rapidly during the last quarter, since there was a heavy demand for new housing accommodations around the rapidly growing industrial plants. Rural building in the agricultural regions did not respond so quickly, because unfavorable weather conditions had delayed the crop harvests and the usual fall building program was in part carried over to 1916. In anticipation of a heavy trade the following spring, buying by retail yards, planing mills, and factories during the last two months of the year was heavier in some woods, such as cypress, than it had been during any like period since early in 1913.

The price of lumber was further strengthened by the growing scarcity of cars available for the movement of lumber. A relative scarcity of lumber was therefore created in the larger and more distant consuming regions, and this scarcity was reflected in an increased price for such lumber as could be delivered, regardless of the fact that a surplus of stocks was accumulating at the mills.

The only decline in price from the latter part of 1915 to the last quarter of 1918 came during the second and third quarters of 1916. Despite the fact that stocks carried over from the previous year were not abnormal, there was a tendency on the part of buyers during the early months of 1916 to keep out of the market with the hope that a drop in price would ensue. During the late fall and winter of 1915 prospects for the spring trade had appeared good, but with the holding back of expected purchases and with increasing costs of production, soon after the opening of the year lumbermen began to make price concessions in order to move surplus stock. Psychology plays an important part in the price movement of lumber at such times,

and a slight concession in price on the part of a few firms often leads to concessions on the part of all, prices sometimes falling much below the level warranted by the state of the lumber demand.

An element which seriously disturbed the lumber market appeared in February, 1916, when an acute car shortage set in which later developed into the greatest transportation handicap which the industry had suffered in years. The financial pressure on operators was such that production continued in spite of the fact that only a small volume of lumber could be moved, with the result that a heavy surplus of lumber was accumulated at the mills.

With a proper adjustment of supply and demand the inability to ship would have tended to raise the price of such lumber as could be moved, but the tendency in this case proved the reverse, because of the fact that market demands had been less than anticipated. Production so far exceeded the demands that efforts to reduce output became evident throughout the South and West, in spite of which there was a considerable accumulation of stocks during the year. The car shortage continued to grow worse during the latter part of the year, and at the same time there was an increased demand for lumber. Restored confidence in the industry was reflected in a marked rise in prices. Active lumber buying during the last months of the year had a stimulating effect on the price of all kinds of lumber.

The greatest depression in price during 1916 occurred in the general-purpose woods, such as southern yellow pine and Douglas fir, which are strong competitors in the building trades. Eastern spruce and eastern hemlock prices, however, were maintained because of the lack of competition at home from outside woods. Prices of eastern white pine, ash, hickory, and yellow poplar also showed but little tendency to drop. This marked difference in behavior may be attributed in the case of eastern white pine to the fact that, in addition to being limited in supply and adapted to special uses, the wood is controlled by a comparatively few firms, financially strong, which withhold their product from market when an unsatisfactory price level is reached. The stability of the price movement in ash, hickory, and yellow poplar may be attributed to the rapidly decreasing supply of these woods, and to their possessing qualities which made them of special value in the military program. The demand for hickory for Army vehicles, and for ash and yellow poplar for airplane and other specialized military construction had increased before our entry into the war, because of purchases by foreign governments.

Lumber prices during 1917 showed a greater advance than during any other year of the 1913 to 1918 period. This rapid rise in price was due to the large lumber requirements of the United States Government after its entry into the war, to the great activity in manufacturing centers, to the great prosperity which had come to the agricultural sections, and to the marked advance in the cost of lumber manufacture.

The general lumber market was active during the early months of the year, although lumber movement was still hampered by a lack of cars and by congestion of transportation systems. Soon after the declaration of war, plans were made for the construction of Army cantonments requiring a large quantity of lumber, and this Government demand was supplemented later by the extensive wooden ship-building program. The military and naval program called for vast quan-

tities of lumber for construction, box, and crating material; and immediate plans were made for the movement of the product to the desired centers.

Government purchases were the dominating feature in the market during the last nine months of the year. The general building program was curtailed because of the scarcity of labor and the high prices prevailing for building materials. Building permits for twenty leading cities fell off 35.7 per cent as compared with 1916. During the second quarter, stimulated by heavy Government demands, prices rose rapidly and promised to reach an unwarranted level.

The need for some form of control which would insure an ample supply of lumber at reasonable prices for Government purposes became evident soon after the outbreak of the war, and on June 13, 1917, the Lumber Committee of the Council of National Defense entered into a voluntary agreement with the Southern Pine Association as to the price which the Government should pay for lumber for cantonment purposes.[1] This price applied only to southern yellow pine, but the effect on competing woods was early evident and prices on all construction woods thereafter followed the same general trend.

The greatest volume of lumber purchases made by the Government was of southern yellow pine. Most of the cantonments were located east of the Mississippi River, many of them in the South, and quicker delivery could be made from southern mills. The large stocks on hand and the relatively short-rail haul enabled operators to deliver southern pine lumber in the shortest time and with the least drain on the transportation systems.

The large movement from southern mills led to a marked decrease in the stocks at the mills, which fell from 121 per cent of normal in March to 96 per cent of normal in August. As the wooden shipbuilding program enlarged, increasing demands were made for lumber. Another great stimulus to the lumber trade arose from indirect Government requirements for boxing and crating material which averaged about 1.2 billion feet per year, as well as for both softwoods and hardwoods, for many other purposes.

During the last half of the year the competitive phase of the industry was in the background in so far as price movement was concerned, because the general price level was determined chiefly by the prices paid by the Government.

To sum up the matter, the lumber trade during 1917 was characterized by heavy Government demands, both direct and indirect, a declining commercial demand for purposes not closely related to the war program, a shortage of transportation for the movement of lumber for nonmilitary purposes, and a form of voluntary Government control over prices for Government purchases which had a tendency to restrain increasing prices for such lumber as could be secured by the commercial trade. The industry throughout the country started on a new era of prosperity which continued throughout the remainder of the war.

The year 1918 was one of the most interesting in the history of the lumber industry, since for the first time its activities, both as to the prices received and the movement of its product, were largely under Government control. Commercial prices of lumber advanced rapidly

[1] See pp. 24 to 27 for the text of the agreement.

during the early months of the year.[1] This advance was due to the heavy demand for lumber on the part of the Government and commercial industries, to a tendency on the part of the commercial trade to stock up previous to the 25 per cent advance in freight rates which were to go into effect on June 25, to the marked increase in cost of production because of the advance in wages and supplies, and to the excess of shipments over production, with a corresponding decrease in stocks held at the mills, especially in the South, from which fully 70 per cent of Government requirements were secured.[2] On the west coast and in some of the other regions the stock was not diminishing at such a rapid rate, but inability to transport the maximum commercial requirements served to hold up the price for such commercial sales as could be moved.

The rapidly increasing upward trend of commercial lumber prices forced the conclusion that, in order to satisfy Government demands, there must be some fixed maximum price both for Government and commercial purposes for those woods that were essential for military purposes, since a wide margin between the two, in favor of commercial prices, would lead to discrimination against the Government-buying agencies. The Price Fixing Committee of the War Industries Board therefore established fixed prices on certain species, among which were southern yellow pine, longleaf and shortleaf pine from the Carolinas and Virginia, Pennsylvania hemlock, Douglas fir, western spruce, eastern spruce lumber, and black walnut logs. These prices were revised from time to time to meet increased costs of production and were continued during the war period, expiring on the last dates set for their revision.

Maximum prices on hardwood lumber were not fixed officially, because it proved feasible to secure an adequate supply to meet the Government needs without recourse to this means. The fixing of hardwood prices was under consideration during the latter half of the year and, had the war continued, might have been found necessary. Informal price agreements with manufacturers were entered into, however, for some species, among them black walnut lumber and logs, birch logs, and mahogany lumber.

Conservation measures, which curtailed the activities of various wood-using industries, were put into effect by the War Industries Board during the latter part of the year. This curtailment was largely brought about by control of transportation and labor, of which there was a marked shortage for military purposes. It resulted in the restriction of building operations throughout the country, the value of permits for the first eleven months of 1918 being 37 per cent below that for the same period of 1917, and 62 per cent below that for the same period in 1916. It brought about, also, the almost total cessation of the manufacture of sashes, doors, and blinds, a great reduction in furniture production, and the total or partial cessation of manufacture by many other commercial wood-using industries. On the other hand, certain wood-using industries were greatly stimulated, especially those engaged in the manufacture of crating, boxes and other containers, vehicles and vehicle parts,

[1] The commercial prices of southern yellow pine by May, 1918, were several dollars per thousand board feet in advance of the Government price informally fixed in November, 1917.

[2] Stocks on hand at the mills, as shown by the statistical reports of the Southern Pine Association, were 100 per cent of normal on January 1 and 86 per cent of normal on June 1, 1918.

and the varied classes of wood products which the Government required. The law of supply and demand played a secondary part in determining the movement of prices, because commercial demands were subordinated to the military program wherever necessary.

The lumber demands of the Government, both direct and indirect, during the year, were largely for boxes and crating, airplane stock, and for construction material for wooden shipbuilding, gunstocks, vehicles, and general purposes. In the case of airplane stock a threatened shortage led to the virtual assumption of control over its production on the Pacific Coast, because of the inability of manufacturers, acting independently, to produce the maximum amount of material required. An active campaign of Government exploration to locate supplies of black walnut stock was necessary in order to meet Government requirements.

During the latter half of 1918 an embargo on lumber shipments into the territory north of the Ohio and Potomac Rivers and east of the Mississippi River, except on permit, greatly curtailed the movement of lumber for commercial purposes from the South and West into this territory. The result of this embargo was to hold up the price of woods produced within the embargoed territory, such as eastern spruce and eastern hemlock. Since the maximum prices for these woods were fixed, however, there was no appreciable rise due to this cause, but, on the other hand, there was no drop in prices because of the curtailed production and the absence of competition. During the last quarter of 1918, with the reduction of Government purchases, the prices of both of these woods held to a stationary level.

In reviewing the conditions which existed in the lumber industry during the years 1913 to 1918, there is no evidence that prices were affected or an attempt made to affect them by any concerted agreement among operators, but the downward and upward trend of prices was due rather to various causes, some of which, at least, represented the cumulative results of a situation existing over a considerable period of years.

The rising prices of the latter part of the period, 1916 to 1918, were due chiefly to a demand for lumber stimulated by increased business activity, to transportation congestion which held up prices in some regions through the removal of competition and the creation of a relative scarcity of lumber,[1] to the sudden and abnormal demands of the Government for lumber, and to the greatly increased costs of production.

The immediate factor in the downward movement of lumber prices during the first three years of the period was the unfavorable economic condition which existed in the country and led to a marked decrease in the demand for lumber. The lumber industry was unable to meet this situation because of an inherent weakness in the industry itself, as indicated by the expansion of its lumber-producing capacity far beyond the normal demands. The result has frequently been a marked overproduction during periods of limited demand.

The undue expansion of the lumber business began some 20 years ago, following an era of rising prices in 1897, and was greatly stimulated by the rapid industrial development of the country. The relatively high prices then prevailing led to great activity in the

[1] This was true of hemlock in the Lake States and eastern spruce in New England.

purchase of stumpage. Many large timber holdings were acquired during the next few years by concerns financed in some instances by borrowed capital. The demand for stumpage became so brisk that the prices of raw material early reached a value which absorbed the greater part of the profit. To meet the heavy annual carrying charges of the investment, often running from 8 to 9 per cent, additional mill capacity was installed by existing operators and many new plants were erected, since the chief means of disposing of the stumpage was to place it on the market in the form of lumber.

The high price of lumber from 1900 to 1907 brought a new competitive element into lumber marketing, namely, the introduction of various substitutes for wood in building construction and for other uses. Cement, steel, brick, and metal, tile, and composition roofings came into use in large quantities for building purposes; steel largely replaced wood in car construction; and fiber material was employed in large quantities in box manufacture, and steel in the furniture trade. In many fields lumber has in recent years been wholly or partially supplanted.

The area of high prices for lumber culminated in 1907, and the rapid drop in values that followed the crisis in that year led to many financial failures in the industry and to general demoralization. The demand for stumpage fell off, and the only means by which the majority of holders could secure funds to meet current expenses was to manufacture the stumpage into lumber and sell it in the open market in competition with the product of other operators equally hard pressed.

The financial needs of operators and the excess mill capacity which permits ready expansion of output, but which does not lend itself readily to curtailment because of the increased expense of operation following reduced output, has made the volume of lumber production rather inelastic. Reduction in output is always slow when demand declines, but production is readily accelerated by an increased demand.

The lumber requirements of the Nation are not stable, but vary from year to year with changed economic conditions. The per capita consumption of lumber, although much higher in the United States than in European countries, is rapidly decreasing. It is greatest in the newer States, such as Montana, whose per capita consumption in 1915 was 1,234 board feet, and least in those States having a large percentage of urban population. Thus in 1915 the consumption in New York State was 206 board feet and in Pennsylvania 293 board feet. The per capita consumption of the country at large declined from 485 board feet in 1909 to approximately 350 board feet in 1917.

The lumber industry does not readily adjust its output to the changing requirements of the country because the volume of production is more often determined by the financial needs of the operator than by normal demand. The lumberman is a "timber miner" who seeks to realize on his investment at the earliest possible moment and who, therefore, is continually crowding the market with his product. Hence a slight unfavorable turn in the financial affairs of the country finds the industry unprepared to meet the situation. So long as the operator's financial interests are the chief determinant

of the volume of production, just so long will prices continue to fluctuate whenever adverse economic conditions appear.

The solution of this problem appears to rest on several factors, one of the most important of which is the transformation of timberland investments from a speculative to a sound investment basis. This means a radical reform in the methods of financing the lumber business, which will not only reduce the rate of interest on borrowed capital, but will also, by long-time loans, give release from the present financial burden. That this is a national problem can not be doubted, since present conditions furnish every incentive for the rapid destruction of our virgin forests, with no effort made to replace them. There is little hope that conditions will change until the industry becomes a permanent, not a transient, feature of the industrial life of forest communities, and this will be possible only when timber production accompanies timber exploitation.

The prices of lumber in European countries show less fluctuation in value than those in this country, largely because the output of the industry is based on the productive capacity of the forest and the annual cut represents annual growth only. The yearly output thus becomes a known quantity and permits the establishment in close proximity to the forest of permanent wood-using industries which form a perpetual feature of the industrial life of the community.

In the United States the lumber business is a transient industry, gradually moving from one region to another as the raw material becomes exhausted. The abandoned regions in many cases become rapidly depopulated, because of the absence of any substitute employment. An increased transportation toll on lumber shipments is levied with each shift of the center of production to a more remote location. This, in turn, leads to higher costs to the consumer with no relative gain to the producer. The transient character of the industry, therefore, has a twofold effect on a region. First, one of the chief industrial assets is removed and is not replaced; and, second, the cost of lumber is increased after the industry has disappeared.

The ultimate solution of the question of stability in lumber prices rests on the practice of forestry, which means permanency. Until this becomes a reality, we may look for increasing prices to the consumer, fluctuating profits to the producer, and the rapid diminishing of a natural asset which is invaluable to a nation in both peace and war.

MOVEMENT OF ACTUAL PRICES OF INDIVIDUAL SPECIES.

The actual price movement of the various species included in this bulletin is here briefly reviewed to bring out the general tendencies displayed not only by the species itself, but also by the various grades, the prices of which are quoted.

SOUTHERN YELLOW PINE.

The values of only a few characteristic grades have been quoted, namely, finish B and better, 6 inches and wider from eight mills; No. 1 common boards, 1 by 10 inches; No. 1 dimension, 2 by 8 inches, 16 feet; No. 2 common boards, 1 by 8 inches; and timbers 6 by 8 inches, 16 feet.

The prices of all of the above grades fell from the second quarter of 1913 to the close of 1914, during the last quarter of which the values of all but B and better finish and timbers reached their lowest level. These two continued to drop in price through the first quarter of 1915.

In the price decline B and better finish showed the greatest decrease in value, per thousand board feet, namely $4.89, or 18.8 per cent. No. 1 common boards dropped in value $3.95, or 21.5 per cent; No. 1 dimension, $3.85, or 26.5 per cent; No. 2 common boards, $3.83, or 27.4 per cent; and timbers, $3.50, or 23 per cent. The actual money decrease in the common grades was almost identical, although the percentage decrease was greater for the lowest grades because of the lower base price.

During this period of falling prices costs of production decreased somewhat through a reduction in wages, but the fall in prices was considerably greater than that of costs.

From the last quarter of 1914 through the first three quarters of 1915 the prices of all common grades showed a gradual upward tendency induced by a growing demand for lumber for general construction and railroad purposes.

B and better finish and timbers responded to the upward tendency from the first quarter of 1915. A marked increase took place during the last quarter of 1915, because of the increased demand for lumber and the shortage of cars to move the product to consuming centers.

By the end of 1915 No. 1 dimension and No. 2 common boards had reached a level of prices equal to those prevailing during the second quarter of 1913. No. 1 common boards did not reach the 1913 level until the first quarter of 1916, and B and better finish until the last quarter of 1916.

During 1915, B and better advanced in price 14.1 per cent; No. 1 common boards, 24.2 per cent; No. 2 common boards, 47 per cent; No. 1 dimension, 40.2 per cent; and timbers, 31.5 per cent.

The rapid increase in the prices of the lower grade of lumber, as compared with the higher grades, may be accounted for, at least in part, by the fact that the higher grades are used in the construction of the better class of buildings and dwellings, while the demand for lumber during 1915 was largely for industrial structures and the cheaper class of dwellings for which the common grades were in demand.

Prices of all grades continued to advance during the first quarter of 1916, following which came a decline in all grades during the next two quarters. B and better finish dropped nearly $1 in value; No. 1 common, $1.50; No. 2 common, $2.45; while timbers showed the least decline of all, namely, 71 cents. This drop in price came at a time when the industry faced one of the most severe car shortages in its history, a condition which normally should cause prices to stiffen for such lumber as could be moved. The reverse action in this case can be explained only on the ground of the inability of the industry to adjust its output to the decreased demand.

The last quarter of 1916 showed a marked improvement in price, common grades recovering the ground lost during the decline. B and better finish for the first time reached the price level of the second quarter of 1913.

The maximum advance in values came during the second quarter of 1917, B and better finish increasing $6.88, 25 per cent over the price during the first quarter; No. 2 common boards, $6.85, 41.5 per cent; No. 1 common boards, $6.13, 30.4 per cent; No. 1 dimension, $5.64, 34.5 per cent; and timbers, $4.72, 27 per cent.

This exceptional rise in the price of all grades came at a time when there was a very heavy Government demand for southern yellow pine for cantonment and other military purposes and for shipbuilding, which absorbed a large part of the surplus lumber on hand as well as of the current cut. This caused a marked rise in the commercial price for such lumber as could be moved for the general market.

The price of B and better finish, No. 1 common boards, and timbers continued to rise during the third quarter but declined from 50 cents to $1 during the fourth quarter. No. 2 common boards and No. 1 dimension declined during the third quarter about $1 each, the former rising during the fourth quarter, but the latter dropping a few cents lower in price. This decline was undoubtedly due to dull building conditions during the latter part of the year and to the price agreement made between the Southern Pine Association and the Council of National Defense, which called for a slight reduction in price to the Government on boards and dimension.

During the first two quarters of 1918 the prices of all grades were rising. Production of lumber was below normal, the Government demands heavy, and dealers were buying in greater volume than during the last months of the previous year. In March, 1918, the Price Fixing Committee of the War Industries Board fixed an official price for southern yellow pine for Government purposes, which held prices in line with advancing costs.

In the third quarter of 1918 all grades of common boards fell from $2.31 to $2.81, the maximum drop being in No. 2 boards. Commercial demands had largely ceased with the placing of an embargo on building operations, and with fixed prices on lumber both to the public and the Government, the prices dropped below those of the first and second quarters, when commercial prices were not restricted. The prices of the last quarter of 1918 held approximately on the same level as those of the third quarter.

During the first four years of the period the prices of No. 2 common boards and No. 1 dimension were very close together, but during the last two years the No. 2 common board prices increased in value at a more rapid rate. Dull building conditions probably account for the lower dimension values.

The prices of No. 1 common and timbers also followed an almost identical movement during the first four years, the price of the heavy stock during 1917 and 1918 rising at a slower rate than that of 1-inch boards.

The different grades of southern yellow pine show an increase in value for the 6-year period ranging from 46 per cent for B and better finish to 85 per cent for No. 2 common boards. No. 1 common boards appreciated 61 per cent in value; No. 1 dimension, 56 per cent; and timbers, 69 per cent. The actual net increase was greatest for B and better finish, namely, $12; No. 2 common being $11.83; No. 1 common, $11.27; timbers, $10.43; and No. 1 dimension, $8.12.

The increase in value from the lowest to the highest points touched was 81 per cent for B and better finish, 117 per cent for No. 1 com-

mon, 123 per cent for timbers, 124 per cent for No. 1 dimension, and 180 per cent for No. 2 common. With the exception of B and better finish, the prices of all grades, therefore, more than doubled from the middle of 1915 to 1918, inclusive.

DOUGLAS FIR.

Two grades of Douglas fir only have been taken, namely, No. 1 common boards and No. 2 and better drop siding 1/6, both series from Washington mills. These grades were selected because the price quotations for them are an unbroken series for the period, and their price movement in a general way is characteristic of the other grades of Douglas fir.

Prices of Douglas fir showed a slight increase during the second quarter of 1913. Then a steady decline set in, which culminated in the last quarter of 1914. The price of No. 2 and better drop siding fell $5.17, or 28 per cent, and that of No. 1 common $2.83, or 28 per cent. Throughout the years 1913 and 1914 the prices paralleled those for the common grades of southern yellow pine, No. 2 and better drop siding values being approximately equal to those of No. 1 common southern pine boards and No. 1 common fir being approximately $3 under the values of No. 2 common southern pine boards.

The absence of outside competition in the fir-producing territory tends to hold prices to the general level for a longer period than in the region where competition with southern pine prevails. A greater per cent of pine is sold outside the producing States, so that the prices of pine conform more closely to general conditions, a rise in price in the outside competing territory being early reflected in the home markets.

Prices during the first three quarters of 1915 remained fairly uniform, No. 1 common rising $1 in the fourth quarter and No. 2 and better drop siding, $2. By the first quarter of 1916 the prices of both grades were approximately equal to the values of the second quarter of 1913. Prices rose during the second quarter in contrast with southern yellow pine, which had declined. The third quarter of 1916 showed a decline of $1.83 for No. 1 common and of $2 for No. 2 and better drop siding.

In common with southern yellow pine, fir prices rose in the fourth quarter, the appreciation in value continuing through the third quarter of 1917. The maximum increase in price of the 6-year period took place during the first three quarters of 1917, No. 1 common gaining $8.50, or 85 per cent, and No. 2 and better drop siding, $8, or 44.4 per cent, over the price prevailing during the fourth quarter of 1916.

With some minor fluctuations fir prices remained on a fairly even level until the second quarter of 1918, following which both grades rose to the highest values of the 1913 to 1918 period, namely, $19.50 for No. 1 common and $31 for No. 2 and better drop siding. This represented a total maximum gain in price for the former of 92 per cent and for the latter of 67 per cent.

In the fourth quarter of 1918 prices for No. 1 common declined $3 and for No. 2 and better drop siding, $4, owing to business uncertainty on the coast, caused by a lessened demand for lumber on the part of the Government and the lack of commercial business to take its place.

A marked rise in wages and supplies, accompanied by greatly increased costs of production, caused the rise in price of Douglas fir from 1915 through 1918. For example, the price of donkey engines per pound increased 140 per cent; wire rope per linear foot, 80 per cent; and the unskilled-labor wage from 80 to 120 per cent. The total labor cost, however, did not increase as rapidly as the unskilled wage, because the pay of skilled laborers advanced at a lesser rate. The larger part of the lumber-price increase, however, was absorbed by these increased costs of production.

EASTERN WHITE PINE.

The quotations for eastern white pine include the grades of selects C and better, 5/4; C selects, inch finish, 1 by 10 inches; No. 1 shop, 8/4; No. 1 dimension, 2 by 4 inches, 16 feet; No. 1 dimension, 2 by 10 inches, 16 feet; No. 2 boards, 1 by 8 inches, 12 feet; No. 3 boards, 1 by 12 inches, 10 feet to 20 feet; No. 4 boards mixed widths, 10 feet to 20 feet. These quotations cover a wide range in quality and price.

The values of certain grades of eastern white pine dropped only a slight amount during the 1913 to 1915 period of falling prices. Thus, selects C and better fell in price only $1; No. 2 boards, $1; No. 3 boards, 67 cents. No 4 boards during the last quarter of 1914 were on the same price level as in the second quarter of 1913. In dimension grades of white pine No. 1, 2 by 10 inches, 16 feet, dropped $4.17 below the 1913 level; No. 1 shop, $4.25; and C selects, 1 by 10 inches, $1.84.

The holding up of the price of selects C and better may be attributed to the very limited supply of this quality available and to the fact that it is a product employed for special purposes to which the ordinary construction woods are not adapted. The strength of the "board" grades was undoubtedly due to the heavy demand for boxboard material.

Dimension grades which are thrown into direct competition with other construction woods, such as Douglas fir, hemlock, and southern yellow pine, suffered practically the same decrease as southern yellow pine.

The prices of selects C and better, No. 1 shop, and inch selects stayed at a fairly uniform level until the fourth quarter of 1916, after which they rose rapidly, the former through the third quarter of 1917, the latter two through the second quarter of the same year.

Selects C and better during this time rose $19, or 34 per cent; inch selects, $9, or 19 per cent; and No. 1 shop $12, or 27 per cent. From the third quarter of 1917 selects C and better continued to rise, reaching the maximum price, $85, during the third quarter of 1918. This was a total advance from the fourth quarter of 1916 of almost 52 per cent. In the last quarter of 1918 prices receded $3.

No. 1 shop and inch selects rose only gradually from the second quarter of 1917, the former continuing until the end. Inch selects showed a total gain during the six years of $12, or 25 per cent, and No. 1 shop of $15.25, or 31 per cent.

Boards and dimensions in white pine followed a general upward course from 1915. During the last two quarters of 1918 prices remained practically unchanged.

During the 6-year period No. 3 boards rose in value $17.50, 83 per cent; No. 2 boards, $17.17, 72 per cent; No. 4 boards, $17.50, 106 per cent; No. 1 dimension, 2 by 10 inches, 16 feet, $14.17, 66 per cent; and No. 1 dimension, 2 by 4 inches, 16 feet, $10.33, 50 per cent.

No grade of white pine showed such a period of price depression during the car shortage in 1916 as was exhibited by southern yellow pine and Douglas fir.

Nearly all grades of white pine showed a greater increase in value than southern yellow pine. B and better finish of the latter species showed a gain of $12 only, as compared with $28 for the highest grade of white pine quoted, and No. 1 dimension southern pine showed a gain of $8.12, as compared with $14.17 for white pine.

The steadier course of white-pine prices as compared with southern yellow pine was in part due to the favorable location of the white-pine producing section, which enabled operators to move their lumber on a short haul, and to the strong financial backing of white-pine interests, which made it possible for them to hold their product for a satisfactory price.

EASTERN HEMLOCK.

Four grades of hemlock are included in the price quotations, namely, No. 1 piece stuff, 2 by 4 inches, 16 feet; No. 1 boards, 1 by 8 inches, 16 feet; No. 1 fencing, 1 by 6 inches; and rough timbers, 4 by 4 inches to 8 by 8 inches, 16 feet. The values for the four grades of hemlock show a remarkable uniformity in the differential at any given quarter between the highest and lowest prices for the different grades. The maximum differential, $2.75, was in the third quarter of 1918; and during the greater part of the six-year period it varied between $1 and $2. No other species showed such a consistent relation in price movement in the various grades. The prices of all grades dropped from the second quarter of 1913 through the third quarter of 1915. No. 1 piece stuff dropped $3.40, 17 per cent; timbers, $3.67, 18 per cent; No. 1 boards, $4.17, 19 per cent; and No. 1 fencing, $4.67, 22 per cent.

Prices rose from the third quarter of 1915 through the second quarter of 1916 from $3 to $3.50 and then remained nearly stationary for the next two quarters, in contrast to the competing woods, southern yellow pine and Douglas fir. The prices held up at this time because the car shortage to a large extent kept the other woods mentioned out of the hemlock territory. During the last quarter of 1916 prices again took an upward trend through the second quarter of 1917, the increase for No. 1 piece stuff being $4.50; for No. 1 fencing, $4.59; for timbers, $4.83; and for No. 1 boards, $4.92. This represented the maximum advance for any three-month period during the six years. Values showed but little change from this time on until the second quarter of 1918 when prices again advanced, the increase continuing through the third quarter. In the last quarter of 1918 there was a slight drop in two grades and a slight rise in the others, the maximum changes, however, not exceeding 50 cents.

The increase in value of hemlock grades during the six-year period was: Timbers, $11.83, 57 per cent; No. 1 piece, $10.45, 52 per cent; No. 1 boards, $10.83, 50 per cent; No. 1 fencing, $10.33, 49 per cent.

EASTERN SPRUCE.

The following grades of eastern spruce have been included in the price study: Cover boards, 5 inches and up. Matched boards, bundled furring, 2 inches; frames 8 inches and under; frames 9, 10, 11, or 12 inches, and random 2 by 3 inches up to 2 by 12 inches.

Spruce prices up to the third quarter of 1915 show a uniform downward trend with very few irregularities. Spruce cover boards 5 inches and up followed very closely the movement of hemlock boards 10–16 feet in the Boston market. Both suffered a decline of 19 per cent from the second quarter of 1913 to the fourth quarter of 1915, while spruce prices rose 109 per cent from the latter part of 1915 to the third quarter of 1918, and hemlock boards 69 per cent. Prices of 6-inch North Carolina roofers[1] in the Boston market showed much greater extremes in price movement than either of the above-mentioned woods, a peak coming during the first quarter of 1916 and again in the third quarter of 1917.

During the period from 1913 to 1918 frames showed an increase in price greater than that for any other class, 8 inches and under gaining $20.98, 79 per cent; 10 inches [2] $25.72, 90 per cent: and 11 or 12 inches [2] $26.72, 90 per cent. The increase on random [2] was from $13.37, 60 per cent, for 2 by 3 inches and 2 by 4 inches, up to $23.95, 93 per cent, for 2 by 12 inch stock. Cover boards 5 inches and up [2] rose $17.39, 77 per cent, and matched boards [2] $20.75, 83 per cent. During the same period in the Boston market hemlock boards[3] 10 to 16 feet rose $13.77, and North Carolina roofers $13.41.

There was therefore a greater actual appreciation in value than for the other competing woods mentioned. The period of maximum gain dates from the fourth quarter of 1916 and may be attributed largely to reduced competition because of car shortage during 1916 and later to the demands for southern pine and competing woods in other territories stimulated by the entry of the United States into the war. An additional factor of importance was the freight embargo placed upon southern and western lumber shipments into New England territory during a portion of 1918.

The enhanced value of spruce stumpage for pulpwood tended also to reduce spruce lumber production. The strong competition between pulp and lumber manufacturers for spruce raised the price of stumpage to a point which the lumber industry as a whole could not well meet, and a reduced lumber output was inevitable.

OAK, PLAIN.

The price quotations for oak comprise eight series of firsts and seconds 4/4; nine series of No. 1 common 4/4; eight series of No. 2 common 4/4; and six series of No. 3 common 4/4.

The price movement of the different grades of oak parallel each other very closely, all increasing or decreasing in unison.

The price of firsts and seconds 4/4 oak declined from the second quarter of 1913 to the third quarter of 1915, at which time it reached the lowest level of the period, namely, $46.41, which was a 12 per cent decrease. The value rose about $4 during the fourth quarter of

[1] Price quotations for this species are not given in this bulletin.
[2] These gains are up to the third quarter of 1918, the last on which quotations were given.
[3] Price quotations not given.

1915 and the first quarter of 1916, then dropped slightly during the two following quarters, after which prices rose in a gradual curve to the third quarter of 1918, when the maximum price of the six-year period was reached, namely, $63.65, which was $11.15, or 21 per cent, above the second quarter of 1913.

This grade of oak did not show the marked rise in price during the early part of 1917 which was common to many other woods, but the increase came during the last quarter of 1917 and the first quarter of 1918, although it was much less pronounced than for most other hardwoods. The same characteristics were exhibited by all grades of oak.

The last quarter of 1918 brought a drop of $1 in the price of the F. A. S. grade, the downward movement starting one quarter later than in other grades. No. 1 common oak reached its lowest price during the third quarter of 1915, the decrease in value being 19 per cent as compared with the price during the second quarter of 1913.

With the fourth quarter of 1915 the prices began to rise, and continued on a fairly even curve throughout the entire period. Very slight price depressions were evident during the second and third quarters of 1916, the period of acute car shortage, and in the fourth quarter of 1917. No. 1 common 4/4 oak reached its maximum price, $40.38, during the fourth quarter of 1918. This was a 24 per cent advance over the price of the second quarter of 1913.

The price of No. 2 common 4/4 oak dropped $2.28 during the third quarter of 1913, but showed some recovery during the next two quarters, following which the price rapidly fell until the low point was reached in the first quarter of 1915, the total decrease in value being $6.07, or approximately 28 per cent. The price remained with little change during the next two quarters, following which came a rise of $3.27 during the next two quarters, a decline of $1.70 during the two quarters following, and a final rise in an even curve through the second quarter of 1918. A drop of $1.44 came during the third quarter of 1918, the value in the fourth quarter rising a few cents only. No. 2 common showed a total increase in value during the war period of $7.56, or 34 per cent.

No. 3 common 4/4 oak showed a slight increase in value during the last two quarters of 1913, but by the first quarter of 1914 had reached about the same price level that existed during the second quarter of 1913. The price gradually declined in 1914 and through the third quarter of 1915, when the lowest price level of the period was reached, namely, $8.75, which was 22 per cent below the value of the second quarter of 1913.

The advance in price which began in the fourth quarter of 1915 continued without interruption, save for a very slight decline in the second quarter of 1916, through the second quarter of 1918, after which it remained nearly stationary to the close of the year. It advanced $11.04, almost 100 per cent, during the war period, which was a much greater per cent gain than was made by any other grade of oak.

On the whole oak prices advanced in actual value less than any of the other hardwoods considered in this bulletin.

GUM.

Five series of firsts and seconds 4/4 red gum, five series of firsts and seconds 4/4 sap, five series of No. 1 common 4/4 red, four series No. 1 common 4/4 sap, and four series of No. 2 common 4/4 have been included in the price study.

The price movement tendencies in gum show a great similarity to those for general construction woods, namely, a drop in price until the second or third quarter of 1915, a rising price from that time through the first quarter of 1916, a rather sharp drop during the second and third quarters of 1916, and the maximum quarterly increase during the second quarter of 1917. The maximum price was reached for all grades during the second quarter of 1918, except for F. A. S. red, which was highest in the third quarter, following which there was a slight decline in price to the close of the year.

During the 1913 to 1915 period of falling prices the value of F. A. S. red declined more than that of any other grade, being $7.10, 22 per cent, as compared with $4.33, 22 per cent, for No. 1 common red; $2.80, 15 per cent, for F. A. S. sap; $2.38, 19.8 per cent, for No. 2 common; and $1.75, 12 per cent, for No. 1 common sap.

The F. A. S. red grade showed a greater drop in price because it is used extensively in the manufacture of furniture and by the building trades for interior finish, and the demands for both were slack during 1913 and 1914. On the other hand, sap and common lumber, which are used very extensively for boxes and crates, were in heavy demand because of the great activity of the box industry.

During the latter part of 1915 there was a marked increase in demand for the better grades of gum in furniture manufacture and the building trade, the box trade also taking large quantities of the lower grade product. Gum prices early in 1916 were strengthened by flood conditions in the lower Mississippi Valley, which hampered logging operations and led to a depletion of the gum stock suitable for shipment.

A slight drop in the F. A. S. red gum price occurred during the second and third quarters of 1916, because of decreased building operations and a reduction in purchases by furniture manufacturers. A similar tendency was common to various other woods, among them certain grades of oak, chestnut, and yellow poplar. The drop in price of low-grade gum during 1916 was less than for the upper grades because of the strong demand for box stock.

The demand for all grades of gum was strong during the last two years of the period, although somewhat lessened during the last two quarters of 1918.

During the six-year period, F. A. S. 4/4 red advanced $11, 35 per cent; F. A. S. sap, $14, 76 per cent; No. 1 common 4/4 red, $14.07, 72 per cent; No. 1 common 4/4 sap, $13.75, 95 per cent; and No. 2 common 4/4, $12.37, 98 per cent.

CHESTNUT.

The quotations for chestnut include two series of firsts and seconds 4/4, three series of No. 1 common 4/4, four series of sound wormy 4/4, and one series of No. 3 common 4/4.

Firsts and seconds 4/4 chestnut exhibited a general decline in price from the second quarter of 1913 to the fourth quarter of 1914, the lowest point reached during the six years, the total drop in value

being $5.25, or 12 per cent. Prices during the next two years showed a maximum increase of $2.75, dropping during the last quarter of 1916 to a level $1 below that prevailing during the first quarter of 1915. During the first three quarters of 1917 the price advanced $9, dropping $1.50 during the next two quarters, and then rising to the maximum price of the period, $49, during the third quarter of 1918. This was a total increase during the six years of $4.50, or 10 per cent. The price during the last quarter of 1918 dropped to $48.50.

The weakening of values during the latter part of 1917 and early part of 1918 were also reflected in F. A. S. hard maple and birch by stationary values. This was probably due to reduced demand on the part of the building trades.

No. 1 common 4/4 showed a uniform downward tendency until the third quarter of 1915, when the low price level of the six-year period was reached, the price having dropped $6, or 19 per cent. This grade rose in price after the third quarter of 1915 in a fairly uniform manner, with a slight drop during the second and third quarters of 1916 and the third quarter of 1917, the price being stationary during the first three quarters of 1918. A slight rise during the last quarter of 1918 brought the price of this grade to the highest point reached during six years, namely, $37.33, an advance of $5.33, or 17 per cent.

Sound wormy 4/4 lumber showed the minimum drop in value of any grade of chestnut. The lowest point in its price movement was during the fourth quarter of 1914, when prices had receded $1.50 from those prevailing during the second quarter of 1913. Subsequent to this period there was but little change in price until the first quarter of 1917, when a rapid advance began which continued through the last quarter of 1918. The highest value reached was $33.87, a total increase of $17.37, or 105 per cent.

No. 3 common 4/4, with the exception of the fourth quarter of 1914, showed not more than $1 change in price from the second quarter of 1913 to the second quarter of 1915, following closely the movement of the sound wormy grade. In the third quarter of 1915 the lowest price of the period was reached, namely, $9, which was a 39 per cent decrease in value from the price level of the second quarter of 1913. Prices from the fourth quarter of 1915 through the second quarter of 1916 remained stationary, having advanced $1 over the third quarter in 1915. A rise of $3 came in the third quarter of 1916, and the price remained unchanged until the second quarter of 1917. Following this, prices rose rapidly to the third quarter of 1918, at which time the price was $27, a total advance during the war period of $14, or over 107 per cent. This increase is somewhat comparable to that of No. 3 common hard maple, which was 133 per cent. The price during the last quarter remained at the $27 level.

Throughout the six-year period sound wormy 4/4 and No. 3 common 4/4 displayed a similar price movement, although there was a lesser drop in the former than in the latter. The market demand for both grades was stronger than for the higher grades during the first three years, and this held prices more nearly to the 1913 level. With the exception of the sound wormy grade, chestnut prices advanced less than those of any other species.

HARD MAPLE.

The price quotations comprise one series of firsts and seconds 4/4, one series of No. 1 common 4/4, and one series of No. 3 common 4/4.

The grade of firsts and seconds during the 1913 to 1915 period showed very little fluctuation from the price level of the second quarter of 1913. Prices remained constant until the first quarter of 1914, when they advanced $1. They then dropped in the second quarter $1 below the original level and so continued through the first quarter of 1915. From the second to the fourth quarter of 1915 a gradual decline took place. By the fourth quarter prices had reached the lowest level of the 1913 to 1918 period, which was $2 below the 1913 level. The first quarter of 1916 showed an advance of 67 cents, this being followed in the second quarter by an advance of $4.33. This price was in effect during the last quarter, although a drop of $1 had occurred in the third quarter. During the first three quarters of 1917 the greatest increase of the period took place, namely, $13.50, of which $7 came during the first quarter of the year and $5 during the second quarter. Prices from the fourth quarter of 1917 through the second quarter of 1918 remained constant and were 50 cents below the price level of the third quarter of 1917. The last two quarters of 1918 showed a total uniform advance of $3, which made the highest price quoted during the war, namely, $53. This represented a total advance during the six-year period of $19, or 56 per cent.

No. 1 common 4/4 showed no change in price from the second quarter of 1913 through the first quarter of 1915. In the second quarter of 1915 values dropped $1, this price level continuing throughout the remainder of the year and constituting the lowest price level, namely, $24. An advance of $2 came in the first quarter of 1916, the price rising gradually to the end of the year, when it was $2 above the 1913 level. The greatest increase during the war period came in the first quarter of 1917, when prices rose $7, which marked the maximum price, $34, received during the six-year period. This represented an increase in price since 1913 of 36 per cent. Prices in the third quarter had declined to $31, rising in the fourth to $33, and again dropping in the first and second quarters of 1918 to $30. During the last two quarters of 1918 prices rose to $31, the value which prevailed during the third quarter of 1917.

No. 3 common 4/4 displayed much greater weakness in the market during 1914 and 1915 than did either of the two grades previously mentioned, but much greater strength in this grade was evident during the years 1917 and 1918 than in No. 1 common. The price prevailing during the first quarter of 1913 was $12, which continued without change until the third quarter of 1914. During this quarter and each succeeding one to the fourth quarter of 1915, inclusive (except the first quarter of 1915), a drop of $1 a quarter occurred, bringing the price to $8, the lowest of the six-year period. By the first quarter of 1916 prices had advanced to $10, where they remained throughout the year. From the first quarter of 1917 to the third quarter of 1918 prices rose at a uniform rate (with the exception of the fourth quarter of 1917 when a drop of $1 occurred), bringing the price to $28, the highest for the war period. This was a total advance since the second quarter of 1913 of $16, or 133 per cent.

BIRCH.

The quotations comprise one series each of firsts and seconds 4/4, No. 1 common 4/4, No. 2 common 4/4, and No. 3 common 4/4.

The grade of firsts and seconds showed more marked fluctuations in value during the years 1913 to 1915 than did the other grades of birch, the reason for which is not known. During the third quarter of 1913 the value of the firsts and seconds grade rose $3, followed in the next quarter by a drop of $1. In the second quarter of 1914 a rise of $5 occurred. This increase probably was not characteristic of firsts and seconds birch, since a drop of $6 came in the third quarter. The erratic course was probably true of quotations that were used from the one mill only.

The lowest value was reached in the first quarter of 1915, namely, $38, which represented a total drop of 7 per cent. Prices during the second quarter of 1915 rose $2, followed by a drop of $1 in the third quarter and then a uniform rise through the first quarter of 1916. Prices then fell $1 and remained constant at $42 during the next four quarters. The maximum rise in price began in the second quarter of 1917 and continued throughout the year, showing a gain of $10. Prices remained unchanged during the first two quarters of 1918, after which they again rose uniformly to the maximum price of the period, $56, which was reached during the last quarter of 1918. This price represented a gain in value since the early part of 1913 of $15 or 36.6 per cent.

No. 1 common 4/4 lumber showed a more even decline than did firsts and seconds, although the same tendency to rise was displayed in the third quarter of 1913 and the second quarter of 1915, tendencies which were not common to the lower grades. The lowest price of the period was reached during the third quarter of 1915, a half year later than for firsts and seconds. The lowest point was coincident with that of No. 2 common and No. 3 common. The total maximum drop in price during the war period was $7, which represented a decrease of 30 per cent. From that time on there was an almost uninterrupted rise in price to the end of the year, a drop of $1 coming in the second quarter of 1916, followed by a rise of $1 during the next quarter, and this price remained unchanged throughout the remainder of the year. The total gain in price during the six-year period was $17 or 74 per cent. The last quarter of 1918 showed a consideable rise in price, a phenomenon similar to that which occurred in the second quarter of 1917.

The price of No. 2 common 4/4 fell $5 during the third quarter of 1913, which was more than 50 per cent of the total drop in value during the entire period. During the remainder of 1913, all of 1914 (with the exception of the second quarter), and the first three quarters of 1915 the price gradually fell, reaching $11.50 during the fall of 1915, the lowest level, representing a decrease in value of 42.5 per cent. Prices from this time on rose rapidly and rather uniformly throughout the remainder of the period, reaching a value of $30 during the last quarter of 1918, a total advance in the six-year period of 50 per cent. The only period of stationary prices was from the second to the fourth quarters, inclusive, of 1916, when all grades of birch showed little or no advance. No. 2 common birch suffered a greater decrease from 1913 to 1915 than any other grade of birch. The price, however, in the early part of 1913 appears to have been high in comparison

with those prevailing for other grades and the marked drop brought it on a parity with them.

No. 3 common 4/4 values followed closely the general tendencies shown by No. 2 common throughout the entire six-year period, with the exception of a slight drop in price in 1916, and a drop of $1 during the last quarter of 1918. The lowest price reached was $8 during the second and third quarters of 1915, which represented a drop of $6, or 43 per cent. The highest price reached was $26, an increase over the 1913 level of $12, or 86 per cent.

The general tendencies displayed by all birch prices are similar to those for most other woods. There was a greater relative drop in price in the higher grades of birch than in hard maple, owing, it is believed, to the relatively greater quantity of the former wood which is marketed and also to the fact that it is a less specialized product.

The strength of high-grade birch lumber prices during the latter part of 1918 was, in part, due to the decreased production of lumber and to the neccssity for the diversion of the better quality of birch logs to veneer mills for the manufacture of airplane stock.

No. 3 common birch prices moved very closely along the same lines as No. 3 common hard maple, both being used for crating and like purposes, for which they are of about equal worth. Both in hard maple and birch the low grades showed a greater fall in price during the years 1913 to 1915 than did low-grade gum, all of them being used largely for box and crating stock, the demand for which was active. Gum, however, is the preferred wood and was in stronger demand than either of the two first mentioned. This held gum prices to a more even level.

YELLOW POPLAR.

Prices for three series of firsts and seconds 4/4, two scries for saps or selects 4/4, three series for No. 1 common 4/4, and three series for No. 2 common 4/4 were used for yellow poplar.

The quotations show that the lowest point reached by the firsts and seconds grade was during the first quarter of 1914, but it is believed that this was not characteristic of this grade. The average price used was based on returns from three mills, only one of which showed a marked decrease during this quarter. This mill, therefore, either sold at a price several dollars below the others or else the price was erroneously reported, the latter probably being the case. With this discrepancy eliminated, the firsts and seconds price did not reach its lowest point until the last quarter of 1915, when it had fallen $5.66, or 10 per cent. From 1916 through 1918 there was a rapid rise in price, the maximum being $81.33, an increase of 44 per cent. The greatest rise came during the first quarter of 1918 when the price advanced $12, or 20 per cent, the greatest increase in one quarter which any of the species treated in this bulletin experienced. The demand for the high grades for airplane and other military purposes is believed to have been the chief cause for this remarkable increase.

The saps or selects grade showed a drop in price of $1.50 from the second to the fourth quarter of 1913, after which there was but little change in value until the first quarter of 1915 when a further drop of $2 occurred. The price during the next two quarters was $1.50 higher. A further decline in price took place in the last quarter of 1915 and the first quarter of 1916, the price reaching the same level as during the

first quarter of the previous year. The greatest drop in price during the six-year period was $3, as contrasted with $5.66 for the firsts and seconds grade. From the first quarter of 1916 prices rose rapidly through 1918, although a slight drop of 50 cents occurred during the fourth quarter of 1917.

The total increase in value during the six-year period was $22.50 as compared with $25.67 for the firsts and seconds grade. This grade also showed its most rapid gain during the fourth quarter of 1918, the advance for this quarter being $5, or 22 per cent of the total gain for the six-year period.

No. 1 common 4/4 reached its lowest price level during the third quarter of 1915, a drop of $2.83 from the first quarter of 1913. The general trend of prices throughout this period was downward, although from the first to the third quarters of 1914 the prices were above the level of those prevailing during the last quarter of 1913. From the third quarter of 1915 through the second quarter of 1918 there was a rise in value, except in the second and third quarter of 1916, and in the last two quarters of 1918. Prices did not reach the second quarter of 1913 level until the first quarter of 1917, and the same was true of all other poplar grades. The maximum increase in value for this grade during the six-year period was $17.67, or 58 per cent.

No. 2 common 4/4 showed less fluctuation in price than any of the other grades, the lowest price being reached during the third quarter of 1915. This price, however, was only $2.17 below that for the second quarter of 1913. The curve of falling prices shows less minor fluctuations than for any other poplar grade. Prices had risen $1.67 by the first quarter of 1916, remaining nearly stationary until the end of the year, after which time a rapid increase took place, the price falling only during the fourth quarter of 1917. The total increase in value during the six-year period was $16.17, which is $1.50 below that for No. 1 common. The slight fluctuation in the price for this grade during the period of falling prices of 1913 and 1914 is due largely to the strong demand for box material, for which low-grade poplar is extensively used.

The maximum decrease in the price of any yellow poplar grade was in the firsts and seconds, followed in turn by saps and selects, No. 1 common, and No. 2 common; the maximum increases were in almost reverse order. Although all grades fell off in price from 8 to 10 per cent as compared with the second quarter of 1913, the best two grades each increased in price from the lowest to the highest point from 63 to 66 per cent, while No. 1 common increased 81 per cent, and No. 2 common 95 per cent.

ASH.

Price quotations comprising four series of firsts and seconds 4/4, five series of No. 1 common 4/4, and four series of No. 2 common 4/4 were used for ash.

The price of the firsts and seconds grade, with the exception of an abrupt rise during the third quarter of 1913 and the second and fourth quarters of 1914, showed a very stable tendency and experienced the minimum drop of any grade of lumber treated in this bulletin. The abrupt rises mentioned above were due to marked changes in price reported for individual mills and it is not believed that they represent the

tendency of all mills for this grade of ash lumber. The price of the firsts and seconds grade of ash, fell four times during the six-year period, below the level prevailing during the second quarter of 1913, namely, in the fourth quarter of 1913, when the price was 79 cents below, during the first and third quarters of 1914, when it fell 29 and 4 cents, respectively, and during the second and third quarters of 1915, when the price was 16 cents below. The price of this grade gradually rose from that time through the second quarter of 1916, following which a drop in price of $1.50 occurred during the next two quarters. Beginning in the first quarter of 1917 there was an abrupt rise in price which continued uniformly to the end of the war period. Of the total increase in value of $33.59 which occurred during this six-year period, 96 per cent came during 1917 and 1918.

This grade of ash appreciated $33.59 during the war period, which was more than any other grade of any species discussed in this bulletin. Firsts and seconds yellow poplar, which was second, gained $25.67, or $7.92 less than firsts and seconds ash.

The very rapid increase in the price of the firsts and seconds grade was due to the abnormal demand for this material for military purposes, the greater part of the purchases being made in the open competitive market by manufacturers who held Government contracts calling for the use of this material.

No. 1 common and No. 2 common ash showed a gradual uniform drop in price during the first three years of the period. The lowest point reached by No. 1 common was in the third quarter of 1915 and by No. 2 common during the first quarter of 1916. Subsequent to 1915 both grades exhibited a rapid and uniform advance to the end of the war period, except for a slight depression in the price of No. 1 common during the fourth quarter of 1916 and a still slighter depression of No. 2 common in the third quarter of the same year. These losses were in each case more than recovered during the following quarter. The price curve of the two grades of common ash resemble each other closely, the price differential ranging from a minimum of $9 to a maximum of $12, the average being above $10.

The total increase in price of No. 1 common during the war period was $13.80, or 46 per cent; that of No. 2 common was $15.38, or 89 per cent. Unlike the lower grades of some other hardwoods, those of ash did not fall off in price during the last two quarters of 1918. This was due largely to specialized uses for the wood which were not greatly affected by the cessation of hostilities. The low grades of many other hardwoods were used largely in box and crate manufacture, the demand for which was curtailed late in 1918.

HICKORY.

Owing to the lack of price data for firsts and seconds, the quotations are confined to one series of No. 1 common 8/4, and one series of No. 2 common 8/4.

The price of No. 1 common held to a constant level during the second and third quarters of 1913, dropping $2 in the fourth quarter and rising $2 during the following quarter. It is believed that the decline in price was abnormal and that the general course of prices was horizontal. During the second and third quarters of 1914 prices fell off $4, which level was maintained through the second

quarter of 1916, with the exception of a drop of $2.50 during the second quarter of 1915. This was the lowest point touched during the six-year period and represented a 19 per cent decline in price. Again, this drop is regarded as not being characteristic of this grade and has not been considered a general tendency. From the third quarter of 1916 prices showed a rapid upward trend, with a slight depression taking place in the fourth quarter of 1917; but the maximum increase came in the third quarter of 1918, in contrast with most hardwoods, which showed the maximum increase during the early part of 1917. This was probably due, in large part, to the very heavy demand for vehicle stock which existed during the latter part of 1917 and the early part of 1918.

The price of No. 1 common touched its highest point, $60, during the third quarter of 1918, and remained at that level during the fourth quarter. This represented a 76 per cent increase in value over the price prevailing during the second quarter of 1913.

No. 2 common hickory showed a more stable price movement than No. 1 common. At no time did the price fall more than $1 below the level of the second quarter of 1913, and at no time previous to the fourth quarter of 1916 did the price rise more than $1 above it. During the second quarter of 1917 the price of this grade began to advance more rapidly than that for No. 1 common, a condition which continued until the third quarter of 1918. The strength of the lower grade was undoubtedly due to the strong demand for dimension stock which may be manufactured from the lower grades.

The highest quotation for No. 2 common was $40 in the third quarter of 1918. This was a total advance of $23, or 135 per cent. In the fourth quarter of 1918 a drop in price of $10 was shown, but this appears abnormal and doubtless was greater than the average decrease.

The weakening of values in hickory during the last quarter of 1918 was probably due to the cancellation of Government orders placed with vehicle manufacturers. This was, of course, followed by a large decrease in demand, since vehicle plants had heavy stocks on hand for the manufacture of Government vehicles and these stocks had to be worked off before additional material was purchased.

122966—19——6

APPENDIX.

TABLES.

TABLE OF WEIGHTS.

The following schedule shows the "weights" used in making the index numbers of lumber prices; that is, the number of thousand feet by which each series of prices was multiplied to give it due influence upon the result.

These weights are based upon the "total computed cut" of the various species in 1917 as reported by the Forest Service. The total cut of each species is divided among the items selected as representative according to the estimated relative production of these items. Of course this division of the total weight allotted any species among the items quoted is a rough approximation. Since the order of the entries follows that of the table, abbreviated descriptions suffice:

	M feet.
Douglas fir:	
No. 1	3,630,000
No. 2	1,950,000
	5,580,000
Cypress:	
Firsts and seconds, 1-inch	127,000
Firsts and seconds, 2-inch	127,000
Firsts and seconds, 1¼ and 1½ inch	126,000
No. 1 shop, 1-inch	190,000
No. 1 shop, 2-inch	190,000
No. 1 shop, 1¼ and 1½ inch	190,000
	950,000
Spruce:	
Boards, covered	169,000
Boards, matched	168,000
Frames, 8-inch	85,000
Frames, 9-inch	85,000
Frames, 10-inch	84,000
Frames, 11 or 12 inch	84,000
Random, 2 by 3 inch, 2 by 4 inch	85,000
Random, 2 by 8 inch	85,000
Random, 2 by 10 inch	84,000
Random, 2 by 12 inch	84,000
Bundled furring	112,000
	1,120,000
Southern yellow pine:	
Finish band	2,710,000
Common boards, No. 1	2,260,000
Common boards, No. 2	4,060,000
Dimension No. 1	2,260,000
Timbers	2,250,000
	13,540,000
Eastern white pine:	
Selects C and better	113,000
Inch finish, C selects	113,000
Shop No. 1, 8/4	113,000
Dimension No. 1, 2 by 4 inch	281,000
Dimension No. 1, 2 by 10 inch	281,000
Boards No. 2	450,000
Boards No. 3	450,000
Boards No. 4	450,000
	2,251,000
Eastern hemlock:	
No. 1 boards	590,000
No. 1 piece stuff	590,000
No. 1 fencing	580,000
Timbers	440,000
	2,200,000

	M feet.
Oak, plain:	
Firsts and seconds	450,000
No. 1 common	788,000
No. 2 common	562,000
No. 3 common	450,000
	2,250,000
Gum:	
Firsts and seconds, red	118,000
Firsts and seconds, sap	118,000
No. 1 common, red	178,000
No. 1 common, sap	177,000
No. 2 common	197,000
	788,000
Chestnut:	
Firsts and seconds	83,000
No. 1 common	166,000
No. 3 common	104,000
Sound, wormy	62,000
	415,000
Hard maple:	
Firsts and seconds	258,000
No. 1 common	430,000
No. 3 common	172,000
	860,000
Ash:	
Firsts and seconds	52,500
No. 1 common	78,800
No. 2 common	43,700
	175,000
Birch:	
Firsts and seconds	104,000
No. 1 common	166,000
No. 2 common	83,000
No. 3 common	62,000
	415,000
Yellow poplar:	
Firsts and seconds	88,000
Saps or selects	96,000
No. 1 common	96,000
No. 2 common	70,000
	350,000
Hickory:	
No. 1 common	62,000
No. 2 common	33,000
	95,000

TABLE 5.—INDEX NUMBERS OF LUMBER PRICES, BY YEARS AND QUARTERS, 1913–1918.

	All species.	Southern yellow pine.	Douglas fir.	Eastern white pine.	Eastern hemlock.	Spruce.	Oak, plain.	Hard maple.	Gum.	Chestnut.	Birch.	Yellow poplar.	Ash.	Hickory.
Years:														
1913	105	105	114	101	105	102	103	100	105	102	100	102	101	100
1914	96	95	96	99	96	97	95	99	94	95	95	99	98	96
1915	94	96	96	96	92	94	90	94	91	91	84	97	96	90
1916	109	114	125	103	109	106	97	103	110	95	95	100	97	97
1917	146	160	177	135	140	140	113	135	150	113	122	116	121	117
1918	172	186	205	162	159	177	135	146	184	136	145	154	162	162
Quarters, 1913:														
Second	111	114	127	101	110	105	107	100	108	104	101	104	103	102
Third	104	106	106	101	104	101	102	100	106	102	101	102	104	103
Fourth	99	98	99	100	99	100	102	100	102	101	98	100	97	97
Quarters, 1914:														
First	99	98	99	99	98	100	99	101	99	100	98	98	99	103
Second	98	98	96	100	98	99	96	99	94	97	103	100	100	98
Third	96	96	99	99	96	96	95	98	92	93	94	100	96	91
Fourth	91	88	89	98	93	95	89	97	91	89	87	98	97	92
Quarters, 1915:														
First	91	88	93	96	91	95	89	97	90	92	83	96	96	92
Second	91	90	92	95	91	95	89	94	88	90	86	98	95	86
Third	91	93	92	94	89	92	88	93	91	87	78	97	95	91
Fourth	104	114	105	98	98	96	93	92	95	92	89	96	96	92
Quarters, 1916:														
First	111	118	128	100	107	104	98	99	112	95	95	98	96	93
Second	108	109	135	101	107	105	95	104	109	93	94	100	99	92
Third	106	108	117	103	108	102	95	105	107	95	95	99	98	95
Fourth	113	120	121	107	113	112	98	106	111	96	95	101	97	108
Quarters, 1917:														
First	122	127	138	115	121	125	102	129	127	100	104	107	103	108
Second	150	167	177	135	146	139	112	135	152	115	121	114	119	119
Third	156	172	200	143	147	142	118	136	156	118	127	122	128	122
Fourth	159	173	192	145	146	155	120	139	163	122	133	122	134	120
Quarters, 1918:														
First	166	182	203	154	147	161	129	135	175	133	139	143	150	132
Second	176	194	203	163	156	180	137	158	188	135	140	154	160	144
Third	176	184	222	167	166	184	137	146	188	137	145	156	165	192
Fourth	173	185	191	165	166	184	138	145	185	138	158	161	172	179

TABLE 6.—ACTUAL PRICES OF LUMBER, BY YEARS AND QUARTERS, 1913–1918.

	Southern yellow pine.					Eastern white pine.		
	Finish B, and better, 6 in. and wider.	Common boards, No. 1, S-2-S, 1″ x 10″.	Com. boards, No. 2, S-2-S, 1″ x 8″.	Dimension No. 1, S-1-S-1-E, 2″ x 8″, 16′.	Timbers, S-1-S-1-E, 6″ x 8″, 16′.	No. 2 boards, 1″ x 8″, 12′.	No. 3 boards, 12″ x 10″, 20′.	No. 4 boards, mixed widths, 10′–20′.
Market	Ala., Ark., La., Tex., Miss.	La., Miss., Tex., Ala., Ark.	La., Ark., Miss., Ala., Tex.	La., Ala., Miss., Tex. Ark.	La., Miss., Tex., Ala.	Minn. and Wis.	Minn. and Wis.	Minn and Wis.
Unit	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.
Base Price	**$24.2070**	**$15.9454**	**$11.9322**	**$11.5278**	**$13.7232**	**$23.0417**	**$21.0208**	**$16.5208**
1913—Year	25.0312	16.7604	12.7354	12.4537	14.4643	23.5000	21.0278	16.6111
Quarters—								
Second	26.0000	18.3571	13.9857	14.4375	15.1429	23.8333	21.0000	16.5000
Third	25.6875	16.5000	12.8938	12.1667	14.4643	23.6667	21.2500	16.8333
Fourth	23.5625	15.9688	11.6688	11.0833	13.7857	23.0000	20.8333	16.5000
1914—Year	23.2227	15.2656	11.2188	11.2083	12.8750	22.8958	20.7917	16.4375
Quarters—								
First	23.8281	15.8438	11.5625	11.4444	13.2143	22.6667	21.0000	16.4167
Second	23.7500	15.4688	11.8438	11.4167	13.4286	22.8333	21.0000	16.3333
Third	23.4375	15.3438	11.3125	11.3889	13.1429	22.5833	20.5000	16.5000
Fourth	21.8750	14.4063	10.1563	10.5833	11.7143	23.5000	20.6667	16.5000
1915—Year	22.0422	15.4363	11.8519	12.3792	12.9079	23.4167	20.7708	16.1250
Quarters—								
First	21.1125	14.4063	10.4100	10.8289	11.6429	22.8333	21.0000	16.1667
Second	21.2650	14.5988	10.5500	11.7622	12.2143	23.5000	20.3333	15.8333
Third	21.6875	14.8438	11.1563	11.7500	12.4643	23.1667	20.6667	15.8333
Fourth	24.1038	17.8963	15.2913	15.1756	15.3100	24.1667	21.0833	16.5000
916—Year	24.6016	18.0438	14.6172	14.9931	15.7679	26.0833	21.8750	16.7917
Quarters—								
First	24.6563	18.6875	15.8438	15.6667	15.9286	25.1667	21.3333	16.5000
Second	24.1250	17.3625	13.6875	14.1111	15.2143	25.0000	21.0000	16.6667
Third	23.7188	17.1875	13.3950	14.3333	15.2143	26.6667	21.8333	16.5000
Fourth	25.9063	18.9375	15.5625	15.8611	16.7143	27.5000	23.3333	17.5000

TABLE 6.—ACTUAL PRICES OF LUMBER, BY YEARS AND QUARTERS, 1913–1918—Continued.

	Southern yellow pine.					Eastern white pine.		
	Finish B, and better, 6 in. and wider.	Common boards, No. 1, S-2-S, 1″ x 10″.	Com. boards, No. 2, S-2-S, 1″ x 8″.	Dimension No. 1, S-1-S-1-E 2″ x 8″, 16′.	Timbers, S-1-S-1-E, 6″ x 8″, 16′.	No. 2 boards, 1″ x 8″, 12′.	No. 3 boards, 12″ x 10″, 20′.	No. 4 boards, mixed widths, 10′–20′.
Market	Ala., Ark., La., Tex., Miss.	La., Miss., Tex., Ala., Ark.	La., Ark., Miss., Ala., Tex.	La., Ala., Miss., Tex. Ark.	La., Miss., Tex., Ala.	Minn. and Wis.	Minn. and Wis.	Minn. and Wis.
Unit	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.
Base price	**$24.2070**	**$15.9454**	**$11.9922**	**$11.5278**	**$13.7232**	**$23.0417**	**$21.0208**	**$16.5208**
1917—Year	33.6094	25.7969	21.4766	19.9792	21.7500	34.0833	30.0417	23.8333
Quarters—								
First	27.4688	20.1250	16.4688	16.3333	17.4286	29.3333	25.0000	18.8333
Second	34.3438	26.2500	23.3125	21.9722	22.1429	34.0000	29.5000	24.5000
Third	36.3125	28.8125	22.4375	20.8611	23.8929	36.3333	32.0000	26.0000
Fourth	36.3125	28.0000	23.6875	20.7500	23.5357	36.6667	32.3333	26.0000
1918—Year	37.8906	29.8125	26.3438	22.6111	25.5179	40.3333	37.4167	32.2500
Quarters—								
First	37.2500	29.3125	25.5000	21.4722	25.1429	38.6667	35.0000	29.5000
Second	38.2500	31.3125	28.4375	23.6667	25.9286	40.6667	37.6667	32.5000
Third	38.0625	29.0000	25.6250	22.7500	25.4286	41.0000	38.5000	34.0000
Fourth	38.0000	29.6250	25.8125	22.5556	25.5714	41.0000	38.5000	33.0000

	Eastern white pine—Continued.				
	Selects, C and better, 5/4 (M. L.).	Inch finish, C selects, 10″ (M. L.).	Shop No. 1, 8/4 (M. L.).	Dimension No. 1, S-1-S-E, 2″ x 4″, 16′.	Dimension No. 1, S-1-S-1-E, 2″ x 10″, 16′
Market	Minn. and Wis.	Minn. and Wis.	Minn. and Wis.	Minn. and Wis.	Mina. and Wis.
Unit	M ft.	M ft.	M ft.	M ft.	M ft.
Base price	**$54.0000**	**$48.2083**	**$48.3750**	**$20.6875**	**$21.2083**
1913—Year	54.0000	48.8333	48.2500	20.5833	21.2778
Quarters—					
First	(a)	(a)	(a)	(a)	(a)
Second	54.0000	48.0000	48.7500	20.6667	21.3333
Third	54.0000	49.6667	48.0000	20.5833	21.3333
Fourth	54.0000	48.8333	48.0000	20.5000	21.1667
1914—Year	54.0000	46.8333	48.5625	20.5000	20.5417
Quarters—					
First	54.0000	47.3333	48.5000	20.8333	21.1667
Second	54.0000	47.0000	49.0000	20.8333	21.1667
Third	54.0000	46.3333	49.0000	20.6667	20.6667
Fourth	54.0000	46.6667	47.7500	19.6667	19.1667
1915—Year	53.2500	47.4167	45.7500	17.9583	17.9583
Quarters—					
First	53.0000	47.8333	46.5000	18.8333	18.1667
Second	53.0000	49.0000	45.5000	17.3333	17.5000
Third	53.0000	46.1667	44.5000	16.8333	17.1667
Fourth	54.0000	46.6667	46.5000	18.8333	19.0000
1916—Year	54.1250	47.7917	46.3750	20.7083	20.9167
Quarters—					
First	53.0000	47.0000	46.5000	20.1667	20.1667
Second	53.5000	47.5000	46.5000	20.3333	20.8333
Third	54.0000	48.3333	46.0000	20.6667	20.8333
Fourth	56.0000	48.3333	46.5000	21.6667	21.8333
1917—Year	70.2500	55.4583	56.8750	27.1667	27.6667
Quarters—					
First	61.0000	50.6667	51.5000	22.8333	22.8333
Second	69.0000	57.3333	59.0000	27.5000	27.1667
Third	75.0000	55.1667	58.5000	29.1667	30.1667
Fourth	76.0000	58.6667	58.5000	29.1667	30.5000
1918—Year	82.0000	60.0000	62.5000	30.7083	34.8333
Quarters—					
First	78.0000	59.0000	60.0000	30.1667	33.1667
Second	83.0000	60.0000	62.0000	30.6667	35.1667
Third	85.0000	60.6667	64.0000	31.0000	35.5000
Fourth	82.0000	60.3333	64.0000	31.0000	35 5000

[a] Not quoted.

TABLE 6.—ACTUAL PRICES OF LUMBER, BY YEARS AND QUARTERS, 1913-1918—Continued.

	Eastern hemlock.				Oak, plain.			
	No. 1 boards, S-1-S, 1″ x 8″, 16′.	No. 1 piece stuff, S-1-S-1-E, 2″ x 4″, 16′.	No. 1 fencing, S-1-S, 1″ x 6″.	Timbers, rough, 4″ x 4″ to 8″ x 8″, 16′.	Firsts and seconds, 4/4.	No. 1 common, 4/4.	No. 2 common, 4/4.	No. 3 common, 4/4.
Market	Mich. and Wis.	Mich. and Wis.	Mich. and Wis.	Mich. and Wis.	Miss., W. Va., Tenn., Ky., Ark., La.	N. Car., W. Va., La., Ark., Tenn., Ky., Miss.	W. Va., Tenn., Ky., Miss., Ark., La.	W. Va., Miss., Ky., Tenn.
Unit	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.
Base price	**$19.5209**	**$19.0125**	**$18.7708**	**$18.8542**	**$50.1250**	**$30.2639**	**$19.7735**	**$11.0313**
1913—Year	20.4445	19.6166	19.8056	19.7778	51.2500	31.3519	20.6563	11.3472
Quarters—								
Second	21.6667	19.9500	21.1667	20.6667	52.5000	32.4286	22.0000	11.1667
Third	20.4167	20.0500	19.3333	20.0000	51.0625	31.3889	19.7188	11.4167
Fourth	19.2500	18.8500	18.9167	18.6667	50.8125	31.1111	20.2500	11.4583
1914—Year	18.8333	18.1375	18.1458	18.1875	48.5409	28.4722	18.5000	10.1875
Quarters—								
First	19.1667	18.5500	18.7500	18.5000	49.6250	29.8889	19.8750	11.2500
Second	19.2500	18.6000	18.0833	18.2500	49.0000	28.6667	19.2500	10.0000
Third	18.6667	18.2000	18.1667	18.5000	48.9138	28.5556	18.0625	9.9167
Fourth	18.2500	17.2000	17.5833	17.5000	46.6250	26.7778	16.8125	9.5833
1915—Year	18.1667	17.2625	17.2500	17.6667	47.1022	27.1972	16.5842	9.1875
Quarters—								
First	17.8333	17.3500	17.0000	17.3333	46.5000	27.2222	15.9375	9.6667
Second	18.0000	16.9500	17.0000	17.3333	46.8750	27.2222	16.1331	9.0000
Third	17.5000	16.5500	16.5000	17.0000	46.4088	26.4000	16.1413	8.7500
Fourth	19.3333	18.2000	18.5000	19.0000	48.6250	27.9444	17.5000	9.3333
1916—Year	21.4792	20.2750	20.4792	20.3125	50.2028	29.2572	18.4953	9.7292
Quarters—								
First	21.3333	19.7000	20.5000	19.8333	50.5750	29.2567	19.4100	9.8333
Second	21.0000	19.9000	20.0000	20.3333	49.8550	28.9122	17.9825	9.3333
Third	21.3333	19.9500	20.4167	20.1667	49.9413	29.0267	17.7138	9.4167
Fourth	22.2500	21.5500	21.0000	20.9167	50.4400	29.8333	18.8750	10.3333
1917—Year	27.6458	26.4940	26.4583	25.9375	53.9503	34.0264	23.4156	14.2917
Quarters—								
First	23.8333	22.9500	23.1667	22.3333	51.7013	30.8889	20.1250	11.3333
Second	28.7500	27.4500	27.7500	27.1667	52.7125	33.7222	23.8750	13.8333
Third	29.1667	27.7760	27.4167	27.4167	54.8250	35.8833	24.5625	15.1667
Fourth	28.8333	27.8000	27.5000	26.8333	56.5625	35.6111	24.9750	16.8333
1918—Year	31.1042	29.5250	30.1250	30.4583	61.7344	39.5653	28.3125	21.6458
Quarters—								
First	29.1667	28.0500	27.8333	27.3333	60.6250	37.7611	27.0000	18.9167
Second	30.0000	29.6500	29.1667	30.3333	60.0000	40.1667	29.5625	22.3333
Third	32.7500	30.0000	32.0000	31.6667	63.6563	39.9444	28.1250	22.2000
Fourth	32.5000	30.4000	31.5000	32.5000	62.6563	40.3889	28.5625	22.2000

	Gum.					Chestnut.			
	Firsts and seconds, 4/4, red.	Firsts and seconds, 4/4, sap.	No. 1 common, 4/4, red.	No. 1 common, 4/4, sap.	No. 2 common, 4/4.	Firsts and seconds, 4/4.	No. 1 common, 4/4.	No. 3 common, 4/4.	Sound, wormy, 4/4.
Market	Miss., Mo., La.	La., Ark., Tenn., Miss.	La., Ark., Miss., Ala.	Miss., Tenn., La.	Ala., La., Miss.	W. Va., Tenn.	Tenn., Ky., W. Va.	W. Va.	Tenn., W. Va., Ky., N. Car.
Unit	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.
Base price	**$28.2125**	**$18.0000**	**$17.0875**	**$14.0000**	**$11.4063**	**$43.4375**	**$30.0500**	**$12.8750**	**$16.9938**
1913—Year	30.2667	18.5385	18.3462	14.2500	11.7000	43.8334	31.1778	13.0000	17.0333
Quarters—									
Second	31.4000	18.5000	19.3333	14.5000	12.0000	44.5000	32.0000	13.0000	16.5000
Third	30.6000	18.7000	18.6000	14.3750	11.7500	44.0000	31.1000	13.0000	17.2375
Fourth	28.8000	18.4000	17.5000	14.0000	11.5000	43.0000	30.4333	13.0000	17.3625
1914—Year	26.1625	16.8750	15.8125	13.4688	10.7813	41.1250	28.5000	12.1250	16.0000
Quarters—									
First	27.0500	18.1000	16.6500	14.1250	11.3750	44.7500	29.3333	13.0000	16.8750
Second	26.4000	16.8000	15.6000	13.5000	11.0000	42.0000	29.3333	12.5000	16.5000
Third	25.8000	16.4000	15.7000	13.2500	10.2500	39.5000	27.6667	13.0000	15.6250
Fourth	25.4000	16.2000	15.3000	13.0000	10.5000	39.2500	27.6667	10.0000	15.0000

TABLE 6.—ACTUAL PRICE OF LUMBER, BY YEARS AND QUARTERS, 1913-1918—Continued.

	Gum.					Chestnut.			
	Firsts and seconds, 4/4, red.	Firsts and seconds, 4/4, sap.	No. 1 common, 4/4, red.	No. 1 common, 4/4, sap.	No. 2 common 4/4.	Firsts and seconds, 4/4.	No. 1 common, 5/4.	No. 3 common, 4/4.	Sound, wormy, 4/4.
Market	Miss., Mo., La.	La., Ark., Tenn., Miss.	La., Ark., Miss., Ala.	Miss., Tenn., La.	Ala., La., Miss.	W. Va., Tenn.	Tenn., Ky., W. Va.	W. Va.,	Tenn., W. Va. Ky., N. Car.
Unit	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.
Base price	$28.2125	$18.0000	$17.0875	$14.0000	$11.4063	$43.4375	$30.0500	$12.8750	$16.9938
1915—Year	25.1500	16.6250	15.8000	13.0000	10.0938	41.0625	26.6667	10.8750	15.6563
Quarters—									
First	24.8000	15.7000	15.4000	13.0000	10.2500	41.0000	26.6667	12.5000	15.7500
Second	24.3000	15.7000	15.0000	13.0000	10.1250	40.0000	26.1667	12.0000	15.6250
Third	25.3000	17.1000	15.9000	12.7500	9.6250	41.0000	26.0000	9.0000	15.2500
Fourth	26.2000	18.0000	16.9000	13.2500	10.3750	42.0000	27.8333	10.0000	16.0000
1916—Year	30.0105	20.3675	20.0700	15.5938	11.7188	41.1250	28.8333	11.5000	16.4063
Quarters—									
First	30.2000	21.2960	19.9000	16.2500	11.7500	42.0000	29.3333	10.0000	16.7500
Second	29.4920	19.8020	19.6300	15.5000	11.7500	41.5000	28.6667	10.0000	16.2500
Third	28.9500	19.6440	19.7500	14.8750	11.3750	41.0000	28.0000	13.0000	16.2500
Fourth	31.4000	20.7280	21.0000	15.7500	12.0000	40.0000	29.3333	13.0000	16.3750
1917—Year	37.0000	27.1320	27.7000	21.7500	17.4063	45.8125	33.2083	15.7500	24.2188
Quarters—									
First	33.2000	23.1280	23.2000	18.5000	13.8750	41.2500	30.6667	13.0000	18.0000
Second	36.8000	28.6700	27.6000	22.0000	18.0000	47.5000	34.3333	14.0000	24.5000
Third	38.8000	27.7000	29.2000	22.7500	18.2500	49.0000	33.8333	16.0000	26.3750
Fourth	39.2000	29.0300	30.8000	23.7500	19.5000	47.5000	34.0000	20.0000	28.0000
1918—Year	42.3750	32.2575	33.4500	27.6875	23.5938	48.3750	37.0833	26.0000	32.9375
Quarters—									
First	41.0000	31.3800	32.2000	25.7500	21.7500	47.5000	37.0000	25.0000	31.0000
Second	42.6000	32.6500	34.2000	28.5000	24.5000	48.5000	37.0000	25.0000	33.2500
Third	43.5000	32.5000	34.0000	28.2500	24.3750	49.0000	37.0000	27.0000	33.6250
Fourth	42.4000	32.5000	33.4000	28.2500	23.7500	48.5000	37.3333	27.0000	33.8750

	Yellow poplar.				Hickory.	
	Firsts and seconds, 4/4.	Saps or selects, 4/4.	No. 1 common, 4/4.	No. 2 common, 4/4.	No. 1 common, 8/4.	No. 2 common, 8/4.
Market	Ky., Tenn., W. Va.	Tenn., Ky.	N.C., Tenn., Ky.	Ky., W.Va., Tenn.	Tennessee.	Tennessee.
Unit	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.
Base price	$52.5834	$40.1250	$29.5417	$21.2084	$33.0000	$17.7500
1913—Year	54.4444	40.6670	29.6667	21.5000	33.3333	17.3333
Quarters—						
Second	55.6667	41.5000	30.3333	21.8333	34.0000	17.0000
Third	54.0000	40.5000	29.6667	21.5000	34.0000	18.0000
Fourth	53.6667	40.0000	29.0000	21.1667	32.0000	17.0000
1914—Year	51.5417	40.2500	29.5417	20.7500	31.5000	17.2500
Quarters—						
First	49.6667	40.0000	29.8333	21.5000	34.0000	18.0000
Second	53.0000	40.0000	29.6667	20.6667	32.0000	18.0000
Third	52.6667	40.5000	30.0000	20.5000	30.0000	16.0000
Fourth	50.6667	40.5000	28.6667	20.3333	30.0000	17.0000
1915—Year	51.2500	39.3750	28.1667	20.2083	29.3750	16.7500
Quarters—						
First	51.6667	38.5000	28.0000	20.1667	30.0000	17.0000
Second	51.6667	40.0000	28.3333	20.6667	27.5000	17.0000
Third	51.6667	40.0000	27.5000	19.6667	30.0000	16.0000
Fourth	50.0000	39.0000	28.8333	20.3333	30.0000	17.0000
1916—Year	52.0000	40.2500	29.4167	21.0833	31.7500	17.7500
Quarters—						
First	51.0000	38.5000	30.3333	21.3333	30.0000	18.0000
Second	52.3333	41.0000	29.0000	21.0000	30.0000	17.0000
Third	52.0000	41.0000	28.3333	21.0000	32.0000	16.0000
Fourth	52.6667	40.5000	30.0000	21.0000	35.0000	20.0000

TABLE 6.—ACTUAL PRICES OF LUMBER, BY YEARS AND QUARTERS, 1913–1918—Continued.

	Yellow poplar.				Hickory.	
	Firsts and seconds, 4/4.	Saps or selects, 4/4.	No. 1 common, 4/4.	No. 2 common, 4/4.	No. 1 common, 8/3.	No. 2 common, 8/4.
Market	Ky., Tenn., W. Va.	Tenn., Ky.,	N.C., Tenn., Ky.	Ky., W.Va., Tenn.	Tennessee.	Tennessee.
Unit	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.
Base price	**$52.5834**	**$40.1250**	**$29.5417**	**$21.2084**	$33.0000	$17.7500
1917—Year	59.1667	45.2500	35.7500	27.0833	38.2500	21.5000
Quarters—						
First	55.3333	42.5000	32.3333	23.0000	35.0000	20 0000
Second	59.3333	43.0000	35.0000	27.3333	40.0000	20.0000
Third	60.6667	48.0000	37.6667	29.3333	40.0000	22.0000
Fourth	61.3333	47.5000	38.0000	28.6667	38.0000	24.0000
1918—Year	77.7500	59.5000	47.5833	36.5000	51.6250	31.7500
Quarters—						
First	73.3333	56.0000	43.3333	33.6667	41.5000	27.0000
Second	77.3333	59.0000	49.6667	36.0000	45.0000	30.0000
Third	79.0000	59.0000	49.3333	38.3333	60.0000	40 0000
Fourth	81.3333	64.0000	48.0000	38.0000	60.0000	30.0000

	Hard maple.			Ash.			Birch.			
	Firsts and seconds, 4/4.	No. 1 common, 4/4.	No. 3 common, 4/4.	Firsts and seconds, 1/4.	No. 1 common, 4/4.	No. 2 common, 4/4.	Firsts and seconds, 4/4.	No. 1 common, 4/4.	No. 2 common, 4/4.	No. 3 common, 4/4.
Market	Michigan.	Michigan.	Michigan.	Ark., La., Tenn., Ky.	Mo., Miss., Tenn., W.Va., Ky.	Tenn., Ky., W.Va., Mass.	Wisconsin.	Wisconsin.	Wisconsin.	Wisconsin.
Unit	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.
Base price	$34.0000	$25.0000	$12.0000	$41.1875	$27.5250	$16.9063	$44.5000	$23.2500	$14.7500	$12.2500
1913—Year	34.0000	25.0000	12.0000	40.7500	28.4667	17.0417	42.6667	23.3333	16.5000	13.3333
Quarters—										
Second	34.0000	25.0000	12.0000	40.1667	29.7000	17.1250	41.0000	23 0000	20.0000	14.0000
Third	34.0000	25.0000	12.0000	43.3750	28.5000	17.3750	44.0000	24.0000	15.0000	13.0000
Fourth	34.0000	25.0000	12.0000	39.3750	27.2000	16.6250	43.0000	23.0000	14.5000	13.0000
1914—Year	33.5000	25.0000	11.2500	41.1250	26.5000	16.5000	43.2500	22.0000	14.1250	10.8750
Quarters—										
First	35.0000	25.0000	12.0000	39.8750	27.6000	16.8750	43.0000	23.0000	14.5000	12.0000
Second	33.0000	25.0000	12.0000	42.1250	26.8000	16.7500	48.0000	23.0000	15.0000	11.0000
Third	33.0000	25.0000	11.0000	40.1250	26.0000	16.6250	42.0000	22.0000	14.0000	11.0000
Fourth	33.0000	25.0000	10.0000	42.3750	25.6000	16.0000	40.0000	20.0000	13.0000	9.5000
1915—Year	32.5000	24.2500	8.7500	40.5313	25.4750	16.1250	39.5000	18.8750	12.0000	8.6250
Quarters—										
First	33.0000	25.0000	10.0000	40.3750	25.8000	16.0000	38.0000	18.5000	12.5000	9.5000
Second	32.5000	24.0000	9.0000	40.0000	25.5000	16.3750	40.0000	20.0000	12.0000	8.0000
Third	32.5000	24.0000	8.0000	40.0000	25.2000	16.3750	39.0000	16.0000	11.5000	8.0000
Fourth	32.0000	24.0000	8.0000	41.7500	25.4000	15.7500	41.0000	21.0000	12.0000	9.0000
1916—Year	35.6675	26.5825	10.0000	42.1875	25.9000	15.5000	42.2500	22.7500	13.6250	10.0000
Quarters—										
First	32.6700	26.0000	10.0000	42.0000	25.5000	14.6250	43.0000	23.0000	12.5000	10.5000
Second	37.0000	26.3700	10.0000	43.0000	26.1000	15.6250	42.0000	22.0000	14.0000	10.0000
Third	36.0000	27.0000	10.0000	42.2500	26.2000	15.5000	42.0000	23.0000	14.0000	9.5000
Fourth	37.0000	27.0000	10.0000	41.5000	25.8000	16.2500	42.0000	23.0000	14.0000	10.0000
1917—Year	48.3750	32.7500	15.0000	53.0625	31.3500	20.0625	47.5000	30.5000	21.5000	15.9000
Quarters—										
First	44.0000	34.0000	11.0000	44.5000	27.2000	16.6250	42.0000	26.0000	18.0000	11.0000
Second	49.0000	33.0000	14.0000	52.2500	31.2000	19.3750	46.0000	31.0000	22.0000	15.0000
Third	50.5000	31.0000	18.0000	55.5000	33.4000	21.7500	50.0000	32.0000	23.0000	15.0000
Fourth	50.0000	33.0000	17.0000	60.0000	33.6000	22.5000	52.0000	33.0000	23.0000	19.0000
1918—Year	51.2500	30.5000	24.5000	70.5000	41.1500	28.8750	53.5000	35.5000	27.2500	24.5000
Quarters—										
First	50.0000	30.0000	20.0000	65.0000	38.9000	26.0000	52.0000	34.0000	25.0000	23.0000
Second	50.0000	30.0000	24.0000	70.7500	40.5000	27.7500	52.0000	34.0000	26.0000	24.0000
Third	52.0000	31.0000	28.0000	72.5000	41.7000	29.2500	54.0000	34.0000	28.0000	26.0000
Fourth	53.0000	31.0000	26.0000	73.7500	43.5000	32.5000	56.0000	40.0000	30.0000	25.0000

TABLE 6.—ACTUAL PRICES OF LUMBER, BY MONTHS, QUARTERS, AND YEARS, 1913-1915.

	Douglas fir.		Cypress.						Spruce.	
	No. 1 com. S-1-S 1″ x 8″ and 10″.	No. 2 and better, drop siding, ⅛.	1's and 2's, 1 inch.	1's and 2's, 2 inches.	1's and 2's, 1¼″ and 1½″.	No. 1 shop, 1 inch.	No. 1 shop, 2 inches.	No. 1 shop, 1¼″ and 1½″.	Boards covered 5″ and up.	Boards matched.
Market	Wash. f. o. b. mills.	Wash. f. o. b. mills.	Boston.	Boston.	Boston.	Boston.	Boston.	Boston.	Boston.	Boston.
Unit	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.
Base price	$7.9167	$15.1667	$45.6731	$51.4672	$48.4760	$29.1827	$39.6293	$36.7596	$22.4279	$24.7981
1913—Year	9.2083	17.3333	46.9471	52.3631	49.2067	30.3077	40.3841	37.2308	22.9904	25.3894
Quarter—										
First	10.1667	18.5000	48.1154	53.5385	49.7500	31.0962	40.8462	37.5000	22.5385	25.1346
Second	10.3333	19.3333	47.6538	52.7212	49.3846	30.7692	40.5000	37.4231	23.8846	26.3846
Third	8.3333	16.5000	46.5192	51.6923	48.9423	29.9038	40.1904	37.0000	22.8654	25.3077
Fourth	8.0000	15.0000	45.5000	51.5004	48.7500	29.4615	40.0000	37.0000	22.6731	24.7308
Months—										
January	9.5000	18.0000	48.3125	54.0000	49.7500	31.2500	41.0000	37.5000	21.7500	23.8750
February	10.5000	18.5000	48.0625	53.4375	49.7500	31.0625	40.8125	37.5000	22.5625	24.8750
March	10.5000	19.0000	48.0000	53.2500	49.7500	31.0000	40.7500	37.5000	23.1500	26.3500
April	11.0000	20.0000	48.0000	53.2500	49.7500	31.0000	40.7500	37.5000	24.2500	26.7500
May	10.5000	19.5000	47.7000	52.8000	49.4000	30.8000	40.5000	37.5000	23.9000	26.6000
June	9.5000	18.5000	47.2500	52.0938	49.0000	30.5000	40.2500	37.2500	23.5000	25.7500
July	8.5000	17.0000	47.0000	51.7500	49.0000	30.5000	40.2500	37.0000	23.0000	25.5000
August	8.5000	16.5000	46.9500	51.7500	49.0000	29.7500	40.2500	37.0000	22.7500	25.2000
September	8.0000	16.0000	45.5000	51.5625	48.8125	29.5000	40.0563	37.0000	22.8750	25.2500
October	8.0000	15.5000	45.5000	51.5000	48.7500	29.5000	40.0000	37.0000	22.7500	24.8750
November	8.0000	15.0000	45.5000	51.5000	48.7500	29.5000	40.0000	37.0000	22.6500	24.6000
December	8.0000	14.5000	45.5000	51.5013	48.7500	29.3750	40.0000	37.0000	22.6250	24.7500
1914—Year	7.9167	14.2917	45.2933	50.8806	47.9567	28.3558	38.2165	36.0192	21.4832	23.9183
Quarters—										
First	8.1667	14.8333	45.4231	51.4262	48.2115	29.0000	39.3077	36.5385	22.2500	24.7500
Second	8.0000	14.3333	45.2500	51.2500	48.0000	28.3654	39.0192	36.5000	21.9231	24.4038
Third	8.1667	14.6667	45.2500	50.6154	48.0192	28.2500	37.7885	36.0385	21.1442	23.6923
Fourth	7.3333	13.3333	45.2500	50.2308	47.5962	27.8077	36.7508	35.0000	20.6154	22.8269
Months—										
January	8.0000	14.5000	45.5000	51.5050	48.3500	29.0000	39.4000	36.6000	22.2500	24.7500
February	8.0000	15.0000	45.5000	51.5038	48.2500	29.0000	39.2500	36.5000	22.2500	24.7500
March	8.5000	15.0000	45.2500	51.2500	48.0000	29.0000	39.2500	36.5000	22.2500	24.7500
April	8.0000	15.0000	45.2500	51.2500	48.0000	28.6250	39.2500	36.5000	22.2500	24.7500
May	8.0000	14.0000	45.2500	51.2500	48.0000	28.2500	39.2500	36.5000	21.9000	24.4500
June	8.0000	14.0000	45.2500	51.2500	48.0000	28.2500	38.5000	36.5000	21.6250	24.0000
July	8.0000	15.0000	45.2500	50.8750	48.0625	28.2500	38.2500	36.5000	21.1875	23.7500
August	8.5000	15.0000	45.2500	50.5000	48.0000	28.2500	38.2500	36.5000	21.1250	23.7500
September	8.0000	14.0000	45.2500	50.5000	48.0000	28.2500	36.7500	35.0000	21.1250	23.5625
October	7.5000	14.0000	45.2500	50.5000	48.0000	28.1000	36.7500	35.0000	20.7500	23.1500
November	7.5000	13.0000	45.2500	50.1250	47.4375	27.5000	36.7500	35.0000	20.5625	22.7500
December	7.0000	13.0000	45.2500	50.0000	47.2500	27.7500	36.7525	35.0000	20.5000	22.5000
1915—Year	7.8750	14.2917	45.4760	50.0865	47.3365	28.1538	37.2019	35.2596	19.6202	22.3798
Quarters—										
First	7.6667	14.0000	45.2500	50.0000	47.2500	28.0000	36.7500	35.0000	20.2692	22.6923
Second	7.5000	13.8333	45.4231	50.0000	47.2500	28.0385	36.7885	35.0385	19.8846	22.3654
Third	7.6667	13.6667	45.5000	50.0000	47.2500	28.4615	37.7500	35.5000	19.2885	22.0192
Fourth	8.6667	15.6667	45.7308	50.3462	47.5962	28.1154	37.5192	35.5000	19.0385	22.4423
Months—										
January	7.5000	14.0000	45.2500	50.0000	47.2500	28.0000	36.7500	35.0000	20.5000	22.6000
February	7.5000	14.0000	45.2500	50.0000	47.2500	28.0000	36.7500	35.0000	20.2500	22.7500
March	8.0000	14.0000	45.2500	50.0000	47.2500	28.0000	36.7500	35.0000	20.0000	22.7500
April	7.5000	14.0000	45.2500	50.0000	47.2500	28.0000	36.7500	35.0000	20.0000	22.6250
May	7.5000	14.0000	45.5000	50.0000	47.2500	28.0000	36.7500	35.0000	19.9000	22.2500
June	7.5000	13.5000	45.5000	50.0000	47.2500	28.1250	36.8750	35.1250	19.7500	22.2500
July	7.5000	13.5000	45.5000	50.0000	47.2500	28.5000	37.7500	35.5000	19.5000	22.0500
August	7.5000	13.5000	45.5000	50.0000	47.2500	28.5000	37.7500	35.5000	19.2500	22.0000
September	8.0000	14.0000	45.5000	50.0000	47.2500	28.3750	37.7500	35.5000	19.0625	22.0000
October	8.0000	14.0000	45.5000	50.0000	47.2500	28.0000	37.7500	35.5000	18.7000	22.0000
November	8.5000	15.0000	45.7500	50.3750	47.6250	28.1250	37.5000	35.5000	18.7500	22.4375
December	9.5000	18.0000	46.0000	50.7500	48.0000	28.2500	37.3500	35.5000	19.7500	23.0000

TABLE 6.—ACTUAL PRICES OF LUMBER, BY MONTHS, QUARTERS, AND YEARS, 1916-1918.

	Douglas fir.		Cypress.						Spruce.	
	No. 1 com. S-1-S 1" x 8" and 10".	No. 2 and better, drop siding, ⅛.	1's and 2's, 1 inch.	1's and 2's, 2 inches.	1's and 2's, 1¼" and 1½".	No. 1 shop, 1 inch.	No. 1 shop, 2 inches.	No. 1 shop, 1¼" and 1½".	Boards covered 5" and up.	Boards matched.
Market	Wash. f. o. b. mills.	Wash. f. o. b. mills.	Boston.	Boston.	Boston.	Boston.	Boston.	Boston.	Boston.	Boston.
Unit	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.
Base price	**$7.9167**	**$15.1667**	**$45.6731**	**$51.4672**	**$48.4760**	**$39.1827**	**$39.6293**	**$36.7596**	**$22.4279**	**$24.7981**
1916—Year	10.3750	18.5833	48.3406	52.5684	49.9340	29.9717	39.6442	36.9009	21.2075	25.1981
Quarter—										
First	10.6667	19.0000	47.3077	51.4615	48.3846	29.2308	37.5577	35.6923	21.1923	25.0385
Second	11.3333	19.6667	47.6346	51.8750	50.3462	29.9808	39.1923	36.5000	21.5385	25.7115
Third	9.5000	17.6667	48.9643	52.7500	50.1964	29.9464	40.1786	37.0536	20.6607	24.4464
Fourth	10.0000	18.0000	49.4077	54.1731	50.7885	30.7308	41.7708	38.3462	21.4808	25.6538
Months—										
January	10.0000	19.0000	47.0000	51.0000	48.0000	29.0000	37.2500	35.5000	20.5000	24.2000
February	10.5000	19.0000	47.0000	51.0000	48.0000	29.2500	37.2500	35.5000	21.3750	25.2500
March	11.5000	19.0000	48.0900	52.5000	49.2500	29.5000	38.2500	36.1250	21.8750	25.8750
April	11.5000	20.0000	45.0500	50.0750	50.1000	29.9500	39.1000	36.5000	21.9000	26.0000
May	11.5000	20.0000	49.2500	53.0000	50.5000	30.0000	39.2500	36.5000	21.5000	25.7500
June	11.0000	19.0000	49.2500	53.0000	50.5000	30.0000	39.2500	36.5000	21.1250	25.3125
July	10.0000	18.0000	48.8500	52.5000	50.1500	29.9000	39.2500	36.4000	20.7500	24.5500
August	9.5000	18.0000	48.7500	52.4375	49.9375	29.9375	40.2500	37.0000	20.5625	24.1250
September	9.0000	17.0000	49.2500	53.2500	50.4500	30.0000	41.0500	37.7500	20.6500	24.6000
October	9.0000	17.0000	49.2500	54.0000	50.7500	30.5625	41.4375	38.1250	20.7500	25.0000
November	10.0000	18.0000	49.2500	54.0000	50.7500	30.7500	41.5000	38.2500	21.1250	25.2500
December	11.0000	19.0000	49.6690	54.4500	50.8500	30.8500	42.3750	38.6000	22.3500	26.5000
1917—Year	15.8750	23.9167	55.5781	61.6224	57.3438	35.2083	43.4559	42.5938	29.0245	33.6569
Quarter—										
First	11.8333	19.6667	50.5962	55.7500	51.7692	31.4423	43.2115	39.6154	24.1458	27.9583
Second	16.0000	23.6667	53.9444	58.7639	55.8889	33.8889	44.2500	40.5000	29.3846	33.5385
Third	18.5000	26.0000	58.0385	64.4231	60.0385	37.3846	(a)	45.0000	30.5769	36.1923
Fourth	17.1667	26.3333	59.2308	66.6731	61.2308	37.7115	(a)	44.6154	31.6154	36.5000
Months—										
January	11.5000	19.0000	50.0000	55.2500	51.0000	31.1250	42.7500	39.0000	22.5625	26.5000
February	12.0000	20.0000	50.3750	55.2500	51.2750	31.2500	42.7500	39.0000	23.5000	26.5000
March	12.0000	20.0000	51.2500	56.5500	52.7000	31.8500	43.9500	40.6000	25.8000	30.0000
April	13.0000	21.0000	53.0000	57.3438	54.8750	33.1250	44.2500	38.7500	29.0000	33.0000
May	16.5000	24.0000	53.5000	57.5000	55.5000	33.5000	(a)	39.8333	29.5000	33.5000
June	18.5000	26.0000	56.5000	63.5000	58.5000	36.0000	(a)	45.0000	29.6000	34.0000
July	18.5000	26.0000	56.5000	63.5000	58.5000	36.7500	(a)	45.0000	30.1250	35.7500
August	18.5000	26.0000	58.3750	64.6250	60.3750	37.5675	(a)	45.0000	30.5000	36.2500
September	18.5000	26.0000	59.0000	65.0000	61.0000	37.7500	(a)	45.0000	31.0000	36.5000
October	16.5000	26.0000	59.0000	66.0313	61.0000	37.6563	(a)	44.6250	31.5000	36.5000
November	16.5000	26.0000	59.0000	66.3750	61.0000	37.3750	(a)	44.5000	31.5625	36.5000
December	18.5000	27.0000	59.6000	67.4250	61.6000	38.0250	(a)	44.7000	31.7500	36.5000
1918—Year	18.2500	28.0000	68.1667	79.0000	70.7778	43.1111	55.4444	50.0556	37.9519	43.4519
Quarters—										
First	18.5000	27.0000	67.5000	78.0000	70.0000	42.7143	54.8571	49.5000	33.4615	38.6538
Second	18.5000	27.0000	70.5000	82.5000	73.5000	44.5000	57.5000	52.0000	38.4615	44.1154
Third	19.5000	31.0000	(a)	(a)	(a)	(a)	(a)	(a)	39.9231	45.8846
Fourth	16.5000	27.0000	(a)	(a)	(a)	(a)	(a)	(a)	39.9615	45.1538
Months—										
January	18.5000	27.0000	63.5000	72.0000	65.3333	40.3333	51.3300	46.1667	32.2500	36.5000
February	18.5000	27.0000	(a)	(a)	(a)	(a)	(a)	(a)	33.0000	37.8750
March	18.5000	27.0000	70.5000	82.5000	73.5000	44.5000	57.5000	52.0000	34.8000	41.0000
April	18.5000	27.0000	70.5000	82.5000	73.5000	44.5000	57.5000	52.0000	36.8750	42.2500
May	18.5000	27.0000	(a)	(a)	(a)	(a)	(a)	(a)	39.0000	44.6250
June	18.5000	27.0000	(a)	(a)	(a)	(a)	(a)	(a)	39.3000	45.2000
July	19.5000	31.0000	(a)	(a)	(a)	(a)	(a)	(a)	40.0000	45.5000
August	19.5000	31.0000	(a)	(a)	(a)	(a)	(a)	(a)	40.0000	46.1000
September	19.5000	31.0000	(a)	(a)	(a)	(a)	(a)	(a)	39.7500	46.0000
October	16.5000	27.0000	(a)	(a)	(a)	(a)	(a)	(a)	40.2500	46.0000
November	16.5000	27.0000	(a)	(a)	(a)	(a)	(a)	(a)	40.1000	45.1000
December	16.5000	27.0000	(a)	(a)	(a)	(a)	(a)	(a)	39.5000	44.3750

a No quotation.

TABLE 6.—ACTUAL PRICES OF LUMBER, BY MONTHS, QUARTERS, AND YEARS, 1913-1915.

	Spruce.								
	Frames, 8″ and under.	Frames, 9″.	Frames, 10″.	Frames, 11″ or 12″.	Random, 2″ x 3″, 2″ x 4″.	Random, 2″ x 8″.	Random, 2″ x 10″.	Random, 2″ x 12″.	Bundled furring, 2″.
Market	Boston.	Boston.	Boston.	Boston.	Boston.	Boston.	Boston.	Boston.	Boston.
Unit	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.
Base price	**$24.4904**	**$25.4856**	**$26.4856**	**$27.4856**	**$21.2404**	**$22.7837**	**$24.2644**	**$24.7788**	**$22.7115**
1913—Year	25.4135	26.4087	27.4087	28.4087	21.6776	23.1923	24.7933	25.2885	[a] 22.7115
Quarters—									
First	26.5385	27.5385	28.5385	29.5385	22.1394	23.5385	25.0577	25.5577	[a] 22.7115
Second	26.0000	27.0000	28.0000	29.0000	22.1154	23.6923	25.5192	26.0192	[a] 22.7115
Third	24.5000	25.5000	26.5000	27.5000	21.2500	22.7885	24.3269	24.8269	[a] 22.7115
Fourth	24.6154	25.5962	26.5962	27.5962	21.2115	22.7500	24.2692	24.7500	[a] 22.7115
Months—									
January	26.0000	27.0000	28.0000	29.0000	[a]21.7933	23.2500	24.7500	25.2500	[a] 22.7115
February	26.8125	27.8125	28.8125	29.8125	[a]22.3750	23.5625	25.1250	25.6250	[a] 22.7115
March	26.7500	27.7500	28.7500	29.7500	22.2500	23.7500	25.2500	25.7500	[a] 22.7115
April	26.7500	27.7500	28.7500	29.7500	22.2500	23.7500	25.6250	26.1250	[a] 22.7115
May	26.2500	27.2500	28.2500	29.2500	22.1500	23.7500	25.7500	26.2500	[a] 22.7115
June	24.9375	25.9375	26.0375	27.9375	21.9375	23.5625	25.1250	25.6250	[a] 22.7115
July	24.5625	25.5625	26.5625	27.5625	21.2500	22.8750	24.5000	25.0000	[a] 22.7115
August	24.5000	25.5000	26.5000	27.5000	21.2500	22.7500	24.2500	24.7500	[a] 22.7115
September	24.4375	25.4375	26.4375	27.4375	21.2500	22.7500	24.2500	24.7500	[a] 22.7115
October	24.1875	25.1250	26.1250	27.1250	21.1250	22.7500	24.2500	24.7500	[a] 22.7115
November	24.5000	25.5000	26.5000	27.5000	21.2500	22.7500	24.3000	24.7500	[a] 22.7115
December	25.1875	26.1875	27.1875	28.1875	21.2500	22.7500	24.2500	24.7500	[a] 22.7115
1914—Year	23.8413	24.8413	25.8413	26.8413	20.9471	22.4856	23.9038	24.4231	22.2788
Quarters—									
First	24.4808	25.4808	26.4808	27.4808	21.2115	22.7500	24.2500	24.7500	22.7500
Second	24.3654	25.3654	26.3654	27.3654	21.2885	22.8462	24.2115	24.7885	22.6731
Third	23.1731	24.1731	25.1731	26.1731	20.7308	22.2692	23.7115	24.2115	22.2500
Fourth	23.3462	24.3462	25.3462	26.3462	20.5577	22.0769	23.4423	23.9423	21.4423
Months—									
January	24.7500	25.7500	26.7500	27.7500	21.2500	22.7500	24.2500	24.7500	22.7500
February	24.2500	25.2500	26.2500	27.2500	21.2500	22.7500	24.2500	24.7500	22.7500
March	24.3750	25.3750	26.3750	27.3750	21.1250	22.7500	24.2500	24.7500	22.7500
April	24.7500	25.7500	26.7500	27.7500	21.4375	22.8750	24.2500	24.7500	22.7500
May	24.5500	25.5500	26.5500	27.5500	21.3000	22.9000	24.2500	24.7500	22.7500
June	23.7500	24.7500	25.7500	26.7500	21.1250	22.7500	24.1250	24.8750	22.5000
July	23.2500	24.2500	25.2500	26.2500	20.7500	22.3750	23.7500	24.2500	22.2500
August	23.2500	24.2500	25.2500	26.2500	20.7500	22.2500	23.7500	24.2500	22.2500
September	23.0000	24.0000	25.0000	26.0000	20.6875	22.1875	23.6250	24.1250	22.2500
October	22.7000	23.7000	24.7000	25.7000	20.2500	21.7000	23.2500	23.7500	21.3500
November	23.5000	24.5000	25.5000	26.5000	20.5000	22.0625	23.3750	23.8750	21.3750
December	24.0000	25.0000	26.0000	27.0000	21.0000	22.5625	23.7500	24.2500	21.6250
1915—Year	23.7500	24.7356	25.7356	26.7163	20.6103	22.4808	23.7115	24.3029	21.0048
Quarters—									
First	23.7885	24.7308	25.7308	26.6538	20.9808	22.4038	23.6346	24.2500	21.5192
Second	23.7692	24.7692	25.7692	26.7692	21.1250	22.5385	23.6923	24.2115	21.5577
Third	22.7885	23.7885	24.7885	25.7885	19.9808	21.9615	23.2500	23.7500	20.3654
Fourth	24.6538	25.6538	26.6538	27.6538	20.3942	23.0192	24.2692	25.0000	20.5769
Months—									
January	23.9000	24.9000	25.9000	26.9000	21.0000	22.6000	23.7500	24.2500	21.5000
February	23.7500	24.5625	25.5625	26.5625	21.0000	22.3125	23.6250	24.2500	21.5000
March	23.6875	24.6875	25.6875	26.4375	20.9375	22.2500	23.5000	24.2500	21.5625
April	24.5625	25.5625	26.5625	27.5625	21.3333	22.6250	23.6875	24.2500	21.7500
May	23.8000	24.8000	25.8000	26.8000	21.2500	22.6500	23.7500	24.2500	21.7000
June	22.9375	23.9375	24.9375	25.9375	20.8125	22.3125	23.6250	24.1250	21.1875
July	22.7500	23.7500	24.7500	25.7500	20.2500	22.1500	23.2500	23.7500	20.5500
August	22.7500	23.7500	24.7500	25.7500	19.8750	21.9375	23.2500	23.7500	20.2500
September	22.8750	23.8750	24.8750	25.8750	19.7500	21.7500	23.2500	23.7500	20.2500
October	23.3500	24.3500	25.3500	26.3500	19.7750	21.9500	23.3500	24.0500	20.2500
November	24.9375	25.9375	26.9375	27.9375	20.4375	23.1250	24.0000	24.5000	20.2500
December	26.0000	27.0000	28.0000	29.0000	21.1250	24.2500	25.6875	26.6875	21.3125

[a] Interpolated.

TABLE 6.—ACTUAL PRICES OF LUMBER, BY MONTHS, QUARTERS, AND YEARS, 1916–1918.

	Spruce.								
	Frames, 8″ and under.	Frames, 9″.	Frames, 10″.	Frames, 11 or 12″.	Random, 2 x 3″, 2 x 4″.	Random, 2 x 8″.	Random, 2 x 10″.	Random, 2 x 12″.	Bundled furring, 2″.
Market	Boston.	Boston.	Boston.	Boston.	Boston.	Boston.	Boston.	Boston.	Boston.
Unit	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.	M ft.
Base price	**$24.4904**	**$25.4856**	**$26.4856**	**$27.4856**	**$21.2404**	**$22.7837**	**$24.2644**	**$24.7788**	**$22.7115**
1916—Year	27.3396	28.3396	29.3396	30.3396	22.0094	25.7123	27.2500	28.2264	21.3679
Quarters—									
First	26.5962	27.5962	28.5962	29.5962	21.4650	25.1538	26.4808	27.4038	21.6154
Second	26.8654	27.8654	28.8654	29.8654	21.4615	25.0577	26.5577	27.5577	21.3846
Third	26.2143	27.2143	28.2143	29.2143	21.1786	24.6071	26.5357	27.5357	20.6607
Fourth	29.7692	30.7692	31.7692	32.7692	24.0000	28.1154	29.4808	30.4615	21.8654
Months—									
January	25.9500	26.9500	27.9500	28.9500	21.0000	24.7500	26.0500	26.9500	21.3000
February	27.0000	28.0000	29.0000	30.0000	21.8125	25.3750	26.6875	27.5625	21.6875
March	27.0000	28.0000	29.0000	30.0000	21.6875	25.4375	26.8125	27.8125	21.9375
April	27.6000	28.6000	29.6000	30.6000	21.7000	25.2500	26.7000	27.7000	21.8000
May	27.1875	28.1875	29.1875	30.1875	21.6875	25.3750	26.7500	27.7500	21.3750
June	25.6250	26.6250	27.6250	28.6250	20.9375	24.5000	26.1875	27.1875	20.8750
July	25.2000	26.2000	27.2000	28.2000	20.7500	23.8500	25.9500	26.9500	20.6500
August	26.0000	27.0000	28.0000	29.0000	20.8750	24.1250	26.1875	27.1875	20.5000
September	27.4000	28.4000	29.4000	30.4000	21.8500	25.7500	27.4000	28.4000	20.8000
October	28.0000	29.0000	30.0000	31.0000	22.6875	26.5625	27.6875	28.6875	21.5000
November	29.2500	30.2500	31.2500	32.2500	23.3125	27.3125	28.6875	29.6875	21.6875
December	31.6000	32.6000	33.6000	34.6000	25.6000	30.0000	31.5500	32.5000	22.3000
1917—Year	36.5048	38.1202	39.1779	40.5048	29.9010	33.1505	35.5490	36.5604	27.4952
Quarters—									
First	33.1154	34.1154	35.1154	36.1154	28.1154	31.5000	33.3077	34.3077	24.4423
Second	36.0000	37.0000	38.0000	39.0000	29.9615	33.1154	35.1154	36.1154	26.6923
Third	36.9038	38.3654	39.5962	40.9038	28.9167	32.3333	34.3750	35.3750	27.6538
Fourth	40.0000	43.0000	44.0000	46.0000	32.6875	35.7188	39.4792	40.5250	31.1923
Months—									
January	32.0000	33.0000	34.0000	35.0000	26.0000	30.0000	31.5000	32.5000	22.5625
February	32.5000	33.5000	34.5000	35.5000	28.1250	31.3750	33.1250	34.1250	24.7500
March	34.5000	35.5000	36.5000	37.5000	29.8000	32.8000	34.9000	35.9000	25.7000
April	36.0000	37.0000	38.0000	39.0000	30.5000	33.5000	35.5000	36.5000	26.5000
May	36.0000	37.0000	38.0000	39.0000	30.2500	33.3750	35.5000	36.5000	27.0000
June	36.0000	37.0000	38.0000	39.0000	29.3000	32.6000	34.5000	35.5000	26.6000
July	36.0000	37.0000	38.0000	39.0000	28.3750	31.6875	33.5000	34.5000	26.5000
August	35.9375	36.9375	37.9375	38.9375	27.2500	31.0000	33.0000	34.0000	27.1250
September	38.4000	40.6000	42.2000	44.0000	31.1250	34.3125	36.6250	37.6250	29.0000
October	40.0000	43.0000	44.0000	46.0000	[a]32.0625	[a]35.1563	[a]38.4875	[a]39.5000	30.7500
November	40.0000	43.0000	44.0000	46.0000	33.0000	36.0000	40.2500	41.3750	31.2500
December	40.0000	43.0000	44.0000	46.0000	33.0000	36.0000	39.7000	40.7000	31.5000
1918—Year	45.1950	43.0000	51.7708	53.7708	34.7764	38.7644	44.6538	47.2708	36.2843
Quarters—									
First	41.5385	43.0000	45.5000	47.5000	33.0192	36.5385	41.6154	42.3182	33.1250
Second	45.0962	43.0000	53.0962	55.0962	35.1635	39.3462	46.0000	47.6111	36.3654
Third	46.8854	43.0000	54.2500	56.2500	35.6538	39.6731	45.5000	49.5000	38.1346
Fourth	47.5192	43.0000	54.2500	56.2500	35.2692	39.5000	45.5000	49.4231	37.2692
Months—									
January	40.0000	43.0000	44.0000	46.0000	32.5000	35.8750	39.6250	40.6250	31.7500
February	40.0000	43.0000	44.0000	46.0000	32.4375	35.6250	40.7500	41.8750	33.0000
March	44.0000	[a]43.0000	[a]48.5000	[a]50.5000	33.9000	37.8000	43.9000	45.1667	34.3000
April	45.0000	[a]43.0000	53.0000	55.0000	35.2500	39.1250	46.3750	[a]46.3889	35.6250
May	45.0000	[a]43.0000	53.0000	55.0000	35.3750	39.3750	46.0000	[a]47.6111	36.2500
June	45.2500	[a]43.0000	53.2500	55.2500	34.9250	39.5000	45.7000	48.8333	37.0500
July	46.2500	[a]43.0000	54.2500	56.2500	35.5000	39.5000	45.5000	49.5000	39.3125
August	47.1250	[a]43.0000	[a]54.2500	[a]56.2500	35.9000	39.9500	45.5000	49.5000	37.7000
September	47.1250	[a]43.0000	[a]54.2500	[a]56.2500	35.5000	39.5000	45.5000	49.5000	37.5000
October	47.3125	[a]43.0000	[a]54.2500	[a]56.2500	35.5000	39.5000	45.5000	49.5000	37.5000
November	47.3000	[a]43.0000	[a]54.2500	[a]56.2500	35.3000	39.5000	45.5000	49.5000	37.3000
December	48.0000	[a]43.0000	[a]54.2500	[a]56.2500	35.0000	39.5000	45.5000	49.2500	37.0000

[a] No prices quoted, interpolated.

TABLE 7.—LUMBER IMPORTS INTO THE UNITED STATES FOR THE CALENDAR YEARS 1913 TO 1918, INCLUSIVE.

[The data upon which this table is based are identical with those forming the basis of the statistical tables, by fiscal years, of foreign commerce of the United States contained in "Foreign Commerce and Navigation of the United States for the year ending June 30, 1918," Department of Commerce, Bureau of Foreign and Domestic Commerce, Washington, 1919.]

	1913		1914		1915		1916		1917		1918	
	Value.	Quantity (M feet b. m.).	Value.	Quantity (M feet b. m.).	Value.	Quantity (M feet b. m.).	Value.	Quantity (M feet b. m.).	Value.	Quantity (M feet b. m.).	Value.	Quantity (M feet b. m.).
Wood:												
Chair, cane or reed	$586,051	.....	$268,008	.....	$153,820	.....	$352,260	.....	$179,759	.....	$254,917	.....
Cabinet woods—												
Cedar	1,009,688	17,580	1,074,104	18,305	808,609	14,902	649,792	12,290	892,248	14,067	677,169	9,109
All other	1,400,343	.....	1,013,231	.....	507,423	.....	499,834	.....	679,660	.....	713,186	[1] 5,776
Logs and round timber	1,543,545	144,482	1,427,670	132,259	1,526,262	166,587	1,248,975	126,271	1,030,368	103,154	566,837	33,659
Baskets	.....	.....	.....	.....	255,692	.....	599,765	.....	539,461	.....	258,910	[1] 597,463
Furniture	947,322	.....	865,277	.....	603,433	.....	803,275	.....	539,384	.....	221,023	.....
Lumber—												
Boards, planks, deals, and other sawed lumber	12,510,711	701,705	300,587	8,593	432,466	12,896	676,945	16,483	311,903	5,212	194,001	2,885
Boards, planks, deals, and other sawed lumber, free	[2] 5,105,876	[2] 267,847	17,166,638	910,509	19,550,480	1,047,415	23,427,488	1,210,913	27,600,247	1,198,388	34,100,528	1,206,027
Laths	1,747,053	611,679	1,749,040	613,194	2,117,331	751,084	2,011,061	683,485	1,906,482	605,054	966,448	282,302
All other—												
Dutiable	789,731	.....	268,387	.....	160,780	.....	289,483	.....	383,109	.....	383,421	[1] 417,527
Free	[2] 117,365	.....	302,409	.....	517,226	.....	460,019	.....	332,261	.....	688,885	.....
Pulpwoods—												
Rough	1,108,320	195,906	1,197,754	198,414	1,503,939	258,620	1,132,912	190,921	1,502,341	206,081	2,519,277	276,644
Peeled	3,764,958	581,756	3,837,084	599,299	3,419,046	544,139	4,770,821	742,337	5,423,566	673,235	9,295,009	964,804
Rossed	2,134,072	257,223	1,738,360	201,936	1,355,963	173,215	1,298,837	164,319	1,637,551	152,618	1,548,280	128,579
Rattans and reed	1,117,000	.....	958,418	.....	1,250,425	.....	1,589,599	.....	1,557,352	.....	1,308,465	.....
All other, free (unmanfactured)	616,931	.....	526,433	.....	623,108	.....	719,485	.....	887,297	.....	893,533	.....
Manufactures of wood pulp mechanically ground, free	2,390,872	134,056	3,246,933	193,979	2,588,846	155,407	4,696,801	234,390	7,991,368	249,172	4,720,036	165,605
Pulp, mechanically ground, dutiable	[3] 279,909	[3] 15,846	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pulp, chemical, unbleached, dutiable	[3] 5,286,518	[3] 146,717	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wood pulp—Chemical, bleached, sulfate (from Canada)	1,381,924	26,381	5,984,060	114,320	3,363,998	64,842	1,808,943	30,264	195,014	1,451	[1] 299,790	[1] 3,356
Pulp—												
Unbleached, sulphite	.....	.....	.....	.....	.....	.....	[1] 10,822,256	[1] 153,886	19,291,410	221,583	16,973,540	226,298
Chemical, bleached, dutiable	[3] 2,206,432	[3] 42,648	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bleached, sulphite	.....	.....	.....	.....	.....	.....	[1] 1,251,976	[1] 17,009	4,508,368	36,640	1,512,742	14,962
Unmanufactured, n. o. s., brierwood or brier root, etc	271,648	.....	371,203	.....	297,570	.....	557,244	.....	423,592	.....	831,371	.....
Unmanufactured, n. e. s., all other, dutiable	57,256	.....	23,742	.....	23,838	.....	26,063	.....	24,553	.....	34,654	.....

Wood:												
Wood pulp—Chemical, unbleached, sulfate (from Canada)	4,389,862	117,797	11,180,232	294,884	10,954,182	287,232	8,405,717	174,955	9,993,170	96,369	7,971,067	106,037
All other manufactures of	3,394,460	.....	3,322,976	.....	2,062,198	.....	2,267,914	.....	2,264,472	.....	1,586,653	.....
Timber: Hewn, sawed, squared, or sided	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	[1] 256,976	.....

[1] July to December, inclusive. [2] October to December, inclusive. [3] January to September.

TABLE 8.—LUMBER EXPORTS FROM THE UNITED STATES FOR THE CALENDAR YEARS 1913 TO 1918, INCLUSIVE.

[The data upon which this table is based are identical with those forming the basis of the statistical tables, by fiscal years, of foreign commerce of the United States contained in "Foreign Commerce and Navigation of the United States for the year ending June 30, 1918," Department of Commerce, Bureau of Foreign and Domestic Commerce, Washington, 1919.]

	1913		1914		1915		1916		1917		1918	
	Value.	Quantity (M feet b. m.).	Value.	Quantity (M feet b. m.).	Value.	Quantity (M feet b. m.).	Value.	Quantity (M feet b. m.).	Value.	Quantity (M feet b. m.).	Value.	Quantity (M feet b. m.).
Logs and other round timber:												
Hickory	$330,911	8,957	$223,982	6,368	$86,058	2,306	$64,343	1,985	[1] $5,959	[1] 109	.....	.....
Oak	68,859	1,773	52,439	1,428	42,601	1,770	37,000	1,014	[1] 8,179	[1] 209	.....	.....
Walnut	608,695	10,969	227,478	4,026	126,777	1,576	32,329	367	[1] 150,784	[1] 1,458	.....	.....
All other	2,912,802	138,232	1,837,528	86,095	772,383	36,498	776,370	48,346	[1] 352,379	[1] 22,057	.....	.....
Fir	.....	.....	.....	.....	.....	.....	.....	.....	[2] 13,202	[2] 978	$132,974	8,723
Yellow pine	.....	.....	.....	.....	.....	.....	.....	.....	[2] 89,324	[2] 2,224	192,719	6,263
All other hardwoods	.....	.....	.....	.....	.....	.....	.....	.....	[2] 29,335	[2] 530	61,476	1,157
All other softwoods	.....	.....	.....	.....	.....	.....	.....	.....	[2] 222,816	[2] 13,140	153,598	8,385
Fuel wood and all other unmanufactured	237,511	.....	227,690	.....	133,002	.....	203,824	.....	246,634	.....	176,319	.....
Timber:												
Hewn	879,906	32,461	508,415	19,742	160,406	6,646	215,718	7,667	[1] 143,003	[1] 4,897	.....	.....
Hardwood	.....	.....	.....	.....	.....	.....	.....	.....	[2] 45,410	[2] 1,035	82,892	1,549
Softwood	.....	.....	.....	.....	.....	.....	.....	.....	[2] 84,484	[2] 2,765	116,409	4,030
Sawed—												
Pitch pine	8,705,257	415,518	5,525,464	289,307	3,053,743	164,087	3,481,826	167,201	3,147,663	120,827	1,274,352	35,892
All other	537,169	23,218	427,216	15,577	222,828	8,852	504,630	23,798	[1] 363,305	[1] 14,958	.....	.....
All other hardwood	.....	.....	.....	.....	.....	.....	.....	.....	[2] 112,471	[2] 3,011	275,592	5,662
All other softwood	.....	.....	.....	.....	.....	.....	.....	.....	[2] 305,927	[2] 10,583	745,367	27,630
Lumber:												
Railroad ties	2,896,529	5,710,061	2,281,715	4,503,104	1,981,460	3,545,011	2,647,954	4,508,975	2,717,009	3,800,241	2,308,171	2,681,823
Boards, planks, and deals—												
Cypress	464,969	14,842	373,562	12,504	397,668	11,376	272,940	8,289	574,029	13,176	1,215,756	19,906
Fir	9,098,882	674,441	6,622,201	562,178	3,166,415	279,589	3,289,510	278,885	4,764,218	283,758	8,985,716	272,401
Gum	2,657,240	85,176	1,418,652	47,989	1,017,383	32,554	459,210	17,164	771,794	23,839	1,298,540	27,77

[1] January to June, inclusive. [2] July to December, inclusive.

TABLE 8.—LUMBER EXPORTS FROM THE UNITED STATES FOR THE CALENDAR YEARS 1913 TO 1918, INCLUSIVE—Continued.

	1913		1914		1915		1916		1917		1918	
	Value.	Quantity (M feet b. m.).	Value.	Quantity (M feet b. m.).	Value.	Quantity (M feet b. m.).	Value.	Quantity (M feet b. m.).	Value.	Quantity (M feet b. m.).	Value.	Quantity (M. feet b. m.).
Lumber—Continued.												
Boards, planks, and deals—con.												
Oa	$12,278,439	264,957	$7,573,047	162,369	$5,304,770	101,835	$2,746,097	65,184	$2,775,034	61,648	$3,710,479	64,663
White pine	1,612,437	45,077	1,163,747	31,892	896,410	26,591	995,760	27,838	1,071,994	25,824	1,219,316	21,193
Yellow pine, pitch	21,231,225	987,245	13,114,549	627,899	8,071,348	460,230	9,319,055	483,150	8,204,574	328,430	9,360,486	299,922
Shortleaf	856,825	32,445	400,313	14,026	133,153	3,927	37,413	1,005	101,605	3,983	398,224	12,267
Yellow pine, all other	4,276,786	183,643	1,943,633	87,402	1,047,886	44,406	1,268,770	52,181	2,268,490	88,951	3,033,629	92,571
Poplar	1,566,448	33,734	1,248,638	26,353	1,188,778	24,938	490,463	11,859	550,159	10,492	1,556,209	23,488
Redwood	1,458,625	50,226	1,716,235	58,222	962,798	32,587	909,491	29,710	662,924	20,365	1,255,092	35,835
Spruce	611,496	19,226	346,748	11,524	1,090,595	31,300	2,248,307	46,573	4,688,193	63,655	7,943,976	70,675
All other	6,968,351	182,883	4,812,834	135,613	3,344,768	76,577	3,481,526	72,662	[1] 3,175,432	[1] 47,628	.....	.....
All other boards:												
Hardwood	.....	.....	.....	.....	.....	.....	.....	.....	[2] 3,982,672	[2] 38,477	8,554,461	68,813
Softwood	.....	.....	.....	.....	.....	.....	.....	.....	[2] 279,144	[2] 9,401	822,848	14,681
Lumber:												
Shingles	179,507	72,224	66,657	26,118	38,330	14,830	59,611	18,350	102,469	25,281	95,872	19,892
All other	3,312,865	.....	2,146,964	.....	2,613,795	.....	3,280,393	.....	2,126,627	.....	2,348,459	.....
Doors, sash, and blinds	1,418,538	.....	935,048	.....	336,771	.....	355,393	.....	352,825	.....	380,332	.....
Furniture	7,288,130	.....	4,446,538	.....	2,871,660	.....	3,370,318	.....	[1] 1,913,579	.....	.....	.....
Chairs	.....	.....	.....	.....	.....	.....	.....	.....	[2] 741,240	.....	1,201,267	.....
Office and store furniture	.....	.....	.....	.....	.....	.....	.....	.....	[2] 256,154	.....	501,478	.....
All other furniture	.....	.....	.....	.....	.....	.....	.....	.....	[2] 1,164,196	.....	1,831,481	.....
Handles, implement and tool	.....	.....	.....	.....	.....	.....	.....	.....	[2] 554,258	.....	1,310,431	.....
Hogsheads and barrels, empty	564,088	.....	1,218,389	.....	682,334	.....	703,767	.....	607,063	.....	633,102	.....
Incubators and brooders	178,161	.....	172,184	.....	116,247	.....	76,667	.....	151,739	.....	146,987	.....
Lumber: Shooks, box	1,331,082	12,843,045	1,123,740	9,149,981	1,607,113	[1] 7,095,594	2,023,828	.....	2,125,942	.....	2,737,825	.....
Shooks: Cooperage	.....	.....	.....	.....	.....	.....	.....	.....	[2] 1,194,101	[2] 562,726	4,429,131	1,689,402
Lumber:												
Shooks, all other	2,577,983	1,404,914	847,277	526,776	1,282,169	716,879	1,397,064	634,838	1,803,875	848,665	758,359	567,426
Staves	7,231,934	91,369,115	3,835,176	54,110,347	3,339,026	51,325,917	3,565,142	58,058,719	3,688,684	60,005,602	3,605,332	53,373,526
Heading	325,643	.....	246,504	.....	367,489	.....	239,846	.....	294,248	.....	563,564	.....
Joists and scantling	332,326	18,558	188,626	11,766	[1] 31,760	[1] 1,455	.....	.....	.....	.....	.....	.....
Boat oars and paddles	.....	.....	.....	.....	.....	.....	.....	.....	[2] 126,356	.....	255,378	.....
Trimmings, moldings, and other house furnishings	839,030	.....	446,163	.....	307,349	.....	429,162	.....	375,067	.....	362,825	.....
Woodenware	652,748	.....	471,621	.....	574,726	.....	320,506	.....	259,647	.....	164,756	.....
Wood pulp	738,451	17,657	484,477	11,015	820,134	18,120	2,121,745	35,735	3,469,547	34,982	1,750,377	20,129
Wallboards (substitute for plaster)	.....	.....	.....	.....	.....	.....	.....	.....	[2] 67,643	.....	421,985	.....
Wood: All other manufactures of	7,547,665	.....	6,288,910	.....	7,087,620	.....	8,413,278	.....	8,146,828	.....	9,354,814	.....

MAXIMUM GOVERNMENT PRICE LISTS FOR LUMBER.

SOUTHERN YELLOW PINE.

June 14, 1918, and September 23, 1918.

Government yellow pine or southern pine maximum prices, effective midnight June 14, to and including September 14, 1918, covering the States of Missouri, Arkansas, Texas, Oklahoma, Louisiana, Mississippi, Tennessee, Georgia, Florida, and Alabama:

	B and better heart rift.	B and better rift.	B and better.	No. 1 common.	No. 2 common.
1 by 3, flooring	$54.00	$48.00	$36.00	[1] $34.00	$24.50
1¼ by 3, flooring	66.00	60.00	48.00	.....	.....
1 by 4, flooring	52.00	46.00	34.00	[1] 32.00	24.50
1¼ by 4 flooring	63.00	57.00	45.00	.....	.....
1 by 6, flooring	.....	.....	36.50	[1] 33.00	25.50
1 by 3 to 6 inches, flooring	.....	.....	.....	.....	25.00
1 by 4 and 6 inches, flooring	.....	.....	.....	.....	25.00
½ by 4, ceiling	.....	.....	30.50	29.00	22.50
⅝ by 4, ceiling	.....	.....	32.00	30.50	23.50
¾ by 4, ceiling	.....	.....	35.00	33.00	24.50
¾ by 4, partition	.....	.....	37.00	34.00	.....
¾ by 6, partition	.....	.....	39.50	36.50	.....
1 by 6, drop siding	.....	.....	35.00	32.50	26.50
Bevel siding from 1-inch stock	.....	.....	25.00	23.00	19.00
Bevel siding from 1½-inch stock	.....	.....	27.50	25.50	21.50

[1] Denotes grade as per rule on flooring.
Add $1 per thousand feet for specified lengths.

Finish S2S.	B and better.	"C"	No. 1 common.
1 by 4, random	$35.50	$32.00	.....
1 by 6 and 8 inches, random	37.00	34.00	.....
1 by 10, random	38.00	35.50	.....
1 by 12, random	39.00	36.00	.....
1 by 4 to 12 inches, random	37.00	34.00	.....
1¼ by 4 to 8 inches, random	42.00	.....	$36.50
1¼ by 10 and 12 inches, random	44.00	.....	38.50
1½ by 4 to 8 inches, random	42.00	.....	36.50
1½ by 10 and 12 inches, random	44.00	.....	38.50
2 by 4 to 8 inches, random	42.00	.....	.....
2 by 10 and 12 inches, random	44.00	.....	.....
Molded casing and base from 1 by 4, 6 and 8 inch stock	43.00	.....	.....
Molded casing and base from 1 by 5 and 10 inch stock	45.00	.....	.....
Jambs from 4/4 stock	43.00	.....	.....
Jambs from 5/4 and 6/4 stock and 8/4	48.00	.....	.....

The above prices are for S2S finish; for S4S add 50 cents per thousand feet; for specified lengths add $1 per thousand feet; for rough deduct 50 cents per thousand feet.

NOTE.—C and better shortleaf finish, base, casing, and jambs manufactured in the States of Missouri, Oklahoma, and Arkansas may be sold at $3 per thousand higher than above prices.

Moldings: 1⅝-inch width and smaller, 55 per cent discount; 1¾ inches and wider, 50 per cent discount.

Boards.	1 by 2	1 by 3	1 by 4	1 by 6	1 by 8	1 by 10	1 by 12	1 by 4 to 12.
No. 1 S1 or 2S	$29.50	$30.50	$28.50	$29.50	$29.50	$29.50	$32.50	.....
No. 2 S1 or 2S	24.50	25.50	23.50	24.50	25.50	25.50	27.50	$25.50
No. 3 S1 or 2S	.....	.....	20.50	21.00	21.50	21.50	22.00	21.00
No. 4 S1 or 2S	.....	.....	.....	.....	.....	.....	.....	15.00

For 1 inch No. 1 and No. 2 in specified lengths add 50 cents, except 16 feet add $1; rough 50 cents less than S2S; S4S, D. and M. or shiplap add 50 cents to S2S prices. For resawing add $1 per thousand.
Boards when ordered kiln-dried, add $1 per thousand feet.

Dimension.	10, 18, and 20 feet.	12, 14, and 16 feet.	22 and 24 feet.	Random.
2 by 2, No. 1 common S1S1E	$26.50	$24.50	$28.00	24.50
2 by 3, No. 1 common S1S1E	24.00	23.00	25.50	23.00
2 by 4, No. 1 common S1S1E	25.50	23.50	27.00	23.50
2 by 6, No. 1 common S1S1E	23.00	22.00	24.50	22.00
2 by 8, No. 1 common S1S1E	25.00	23.00	26.50	23.00
2 by 10, No. 1 common S1S1E	25.50	23.50	27.00	23.50
2 by 12, No. 1 common S1S1E	27.00	25.50	28.50	25.50
2 by 2, No. 2 common S1S1E	25.00	23.00	26.50	23.00
2 by 3, No. 2 common S1S1E	22.50	21.50	24.00	21.50
2 by 4, No. 2 common S1S1E	24.00	22.00	25.50	22.00
2 by 6, No. 2 common S1S1E	21.50	20.50	23.00	20.50
2 by 8, No. 2 common S1S1E	23.50	21.50	25.00	21.50
2 by 10, No. 2 common S1S1E	24.00	22.00	25.50	22.00
2 by 12, No. 2 common S1S1E	25.50	24.00	27.00	24.00
2 by 4 by 2 by 8, No. 3 common S1S1E (8 to 20 feet)				17.00
2 by 6, No. 3 common S1S1E (8 to 20 feet)				16.50
2 by 10, No. 3 common S1S1E (8 to 20 feet)				17.50
2 by 12, No. 3 common S1S1E (8 to 20 feet)				18.00

Dimension when ordered sized ¼ inch scant in thickness and /or/ width, add $2 per thousand feet.
Dimension when ordered kiln-dried, add $2 per thousand feet.
Dimension D. and M. or shiplap, add $1 per thousand to S1S1E prices; rough, 50 cents less than S1S1E prices; S4S, add 50 cents per thousand to S1S1E prices. For No. 1 common dimension over 24 feet add $1 for each 2 feet to 32 feet.
NOTE.—All lumber not over 2 inches thick, when ordered odd or fractional lengths, will invoice as of next longer length in multiple of 2 feet.

Timbers.	10 to 20 feet.	22 to 24 feet.	26 feet.	28 feet.	30 feet.	32 feet.
3 by 4 and 4 by 4	$25.00	$26.00	$27.00	$28.00	$29.00	$30.00
3 by 6 to 8 by 8	24.00	25.00	26.00	27.00	28.00	29.00
3 by 10 to 4 by 10	28.00	29.00	30.00	31.00	32.00	33.00
5 by 10 to 10 by 10	27.00	28.00	29.00	30.00	31.00	32.00
3 by 12 to 5 by 12	30.00	31.00	32.00	33.00	34.00	35.00
6 by 12 to 12 by 12	29.00	30.00	31.00	32.00	33.00	34.00
3 by 14 to 5 by 14	35.00	36.00	37.00	38.00	39.00	40.00
6 by 14 to 8 by 14	34.50	35.50	36.50	37.50	38.50	39.50
10 by 14 to 14 by 14	34.00	35.00	36.00	37.00	38.00	39.00

Add for plank 2 inches thick, cut full size, $1 per thousand to list of 3 inches of same width or over.
Add for timbers 14 inches, $3 for each 2 inches over 14 inches.
Add for timbers over 32 feet, $1 for each foot over 32 feet.
Prices above are for shortleaf No. 1 common rough; for better qualities and various working apply the following differentials:

For longleaf No. 1 common add $2 per thousand feet.
For merchantable 10 inches and smaller add $3 per thousand to No. 1 longleaf price.
For merchantable 12 inches and larger add $2 per thousand to No. 1 longleaf price.
For prime rule of 1905 add $5 to No. 1 longleaf price.
For 85 to 90 per cent cubical contents heart, 12 inches and under, add to No. 1 common longleaf $3 per thousand.
For 85 to 90 per cent cubical contents heart, 14 inches and under, add to No. 1 common longleaf $3.50 per thousand.
For 85 to 90 per cent cubical contents heart, 16 inches and under, add to No. 1 common longleaf $4.50 per thousand.
For 85 to 90 per cent facial area heart, 12 inches and under, add to No. 1 common longleaf $5 per thousand.
For 85 to 90 per cent facial area heart, 14 inches and under, add to No. 1 common longleaf, $5.50 per thousand.
For 85 to 90 per cent facial area heart, 16 inches and under add to No. 1 common longleaf $6.50 per thousand.
For all heart timbers, 12 inches and under, add to No. 1 common longleaf $7 per thousand.
For all heart timbers, 14 inches and under, add to No. 1 common longleaf $8 per thousand.
For all heart timbers, 16 inches and under, add to No. 1 common longleaf $10 per thousand.
For standard heart timbers, 12 inches and under, add to No. 1 common longleaf $4 per thousand.
For standard heart timbers 14 inches and under, add to No. 1 common longleaf $5.50 per thousand.
For standard heart timbers, 16 inches and under, add to No. 1 common longleaf $6.50 per thousand.
For heart face, one face only, 12 inches and under, add to No. 1 common longleaf $4.50 per thousand.
For heart face, one face only, 14 inches and under, add to No. 1 common longleaf $5 per thousand.
For heart face, one face only, 16 inches and under, add to No. 1 common longleaf $6 per thousand.
Add for dressing $1 per thousand feet.
Add for T. and G. or shiplap $2 per thousand feet.
Add for grooving $3 per thousand to dressed price stock 3 and 4 inches thick.
Add for grooving $5 per thousand to dressed price stock 5 inches and thicker.
Add for beveling and outgauging $2 per thousand feet to dressed prices.
NOTE.—All timber when ordered in odd or fractional lengths will invoice as of next longer length a multiple of 2 feet.

NOTE.—Add $1 to list when ordered cut on fractional sizes. Prices on fractional sizes will be determined as follows: Sizes containing fractions under one-half inch shall take price of next smaller size listed. Sizes containing fractions half inch or greater shall take price of next larger size listed. For example:

5½ by 8½ inches will take price of 6 by 8 plus $1.
5½ by 8¾ inches will take price of 6 by 10 plus $1.

Ship decking, United States Navy Specifications No. 39P1b: 4½ by 4½ and smaller when not more than 1 inch off square, $100; 3½ by 5½ and smaller when difference between thickness and width is over 1 inch, $116.

EXPORT PRICES (grading as per Gulf Coast specifications of 1910).

PRIME.

1 inch, random widths and lengths	$47.00
1¼ inches, random widths and lengths	52.00
1½ inches, random widths and lengths	52.00
2 inches, random widths and lengths	52.00

GENOA OR RIO PRIME DEALS.

3 to 5 inches thick, 4 to 8 inches wide, 16 feet and up, to average 24 feet	$32.00
3 to 5 inches thick, 9 and 10 inches wide, 16 feet and up, to average 24 feet	36.00
3 to 5 inches thick, 11 and 12 inches wide, 16 feet and up, to average 24 feet	40.00

MERCHANTABLE SAWED TIMBERS.

Regular cubic average: 30 cubic, $33.50; 32½ cubic, $35; 35 cubic, $36.50; 37½ cubic, $38; 40 cubic, $40.

NOTE.—The southern yellow pine maximum Government price list for the period from midnight September 23, to and including December 23, 1918, was the same as the preceding price list except in the following particulars:

Under No. 2 common: 1 by 3 flooring is changed to $26; 1 by 4 flooring, $25; 1 by 6 flooring, $26; ¾ by 4 partition, $26; and ¾ by 6 partition, $27. For air-dried flooring, $1 per M feet is deducted.

The following prices for No. 2 common are added: 1½ by 4 to 8 inches, random, $31; 1½ by 10 and 12 inches, random, $33; 1½ by 4 to 8 inches, random, $31; 1½ by 10 and 12 inches, random, $33.

Under "Boards" a price for No. 2, S1 or 2S, is omitted.

Under "Dimension" the price for 2 by 2, No. 2 common, S1S1E is increased to $26. For merchantable longleaf 10 inches and under wide $3 per M feet is added, and $2 per M feet is added for merchantable longleaf 12 inches and over wide.

The note under "Timbers" in the preceding list reading "Add for plank 2 inches thick, cut full size, $1 per thousand to list of 3 inches of same width or over." is omitted from this later list.

A price is added of $3.65 for No. 1 standard yellow pine lath and $2.65 for No. 2 standard yellow pine lath.

RAILROAD AND CAR MATERIAL.

Government yellow pine or southern yellow pine maximum prices effective midnight June 14 to and including September 14, 1918, covering the States of Missouri, Arkansas, Texas, Oklahoma, Louisiana, Mississippi, Tennessee, Georgia, Florida, and Alabama.

Flooring, ceiling, and drop siding, worked standard patterns, length, 8 to 20 feet.[1]

	B and better, heart rift.	B and better, rift.	B and better.	No. 1.	No. 2.
1 by 3, flooring	$54.00	$48.00	$36.00	$34.00	$24.50
1½ by 4, flooring	66.00	60.00	48.00	.....	.....
1 by 4, flooring	52.00	46.00	34.00	32.00	24.50
1½ by 4, flooring	63.00	57.00	45.00	.....	.....
1 by 6, flooring	.....	.....	36.50	33.00	25.50
1 by 3 to 6 inches, flooring	.....	.....	.....	.....	25.00
1 by 4 to 6 inches, flooring	.....	.....	.....	.....	25.00
⅝ by 4, ceiling	.....	.....	32.00	30.50	23.50
¾ by 4, ceiling	.....	.....	35.00	33.00	24.50
1⅛ by 4, ceiling	.....	.....	40.00	37.00	27.50
1¼ by 4, ceiling	.....	.....	47.00	43.00	30.50
¾ by 4, partition	.....	.....	37.00	34.00	.....
¾ by 6, partition	.....	.....	39.50	36.50	.....
1 by 6, drop siding	.....	.....	35.00	32.50	26.50

[1] Add $1 per thousand feet for specified lengths.

Rough boards and finish, random lengths.[1]

	B and better.[2]	"C."[3]	No. 1 common.[4]	No. 2 common.[5]	No. 3 common.	No. 4 common.
1 by 2	$36.00	$32.50	$39.00	$24.00	.....	.....
1 by 3	37.50	34.50	30.00	25.00	.....	.....
1 by 4	35.00	31.50	28.00	23.00	$20.50	$14.50
1 by 6	36.50	33.50	29.00	24.00	20.50	14.50
1 by 8	36.50	33.50	29.00	25.00	21.00	14.50
1 by 10	37.50	35.00	29.00	25.00	21.00	14.50
1 by 12	38.50	35.50	32.00	27.00	21.50	14.50
1½ by 4 to 8 inches	41.50	.....	36.00	.....	.....	.....
1½ by 10 and 12 inches	43.50	.....	38.00	.....	.....	.....
1½ by 4 to 8 inches	41.50	.....	36.00	.....	.....	.....
1½ by 10 and 12 inches	43.50	.....	38.00	.....	.....	.....
1¾ by 4 to 8 inches	41.50	.....	.....	.....	.....	.....
1¾ by 10 and 12 inches	43.50	.....	.....	.....	.....	.....
2 by 4 to 8 inches	41.50	.....	.....	.....	.....	.....
2 by 10 and 12 inches	43.50	.....	.....	.....	.....	.....

[1] In all grades for widths exceeding 12 inches, including 16 inches, add $3 for each 2 inches or fraction thereof.
[2] In grades B and better and "C," for specified lengths up to 20 feet, add $1.
[3] In grades B and better, "C," Nos. 1 and 2 common, for 22 and 24 feet, add $2.
[4] In grades No. 1 and No. 2 common, for specified lengths up to 20 feet, except 16 feet, add 50 cents a thousand; for 16 feet add $1.
[5] For common boards cut full size, green, add $2 a thousand feet.
For 1-inch common stock ordered kiln dried add $1.

Rough plank and dimension.[1]

	12, 14, and 16 feet.	10, 18, and 20 feet.	22 and 24 feet.[2]	Random.
2 by 2, No. 1 common	$24.00	$26.00	$27.50	$24.00
2 by 3, No. 1 common	22.50	23.50	25.00	22.50
2 by 4, No. 1 common	23.00	25.00	26.00	23.00
2 by 6, No. 1 common	21.50	22.50	24.00	21.50
2 by 8, No. 1 common	22.50	24.50	26.00	22.50
2 by 10, No. 1 common	23.00	25.00	26.50	23.00
2 by 12, No. 1 common	25.00	26.50	28.00	25.00
2 by 2, No. 2 common	22.50	24.50	26.00	22.50
2 by 3, No. 2 common	21.00	22.00	23.50	21.00
2 by 4, No. 2 common	21.50	23.50	25.00	21.50
2 by 6, No. 2 common	20.00	21.00	22.50	20.00
2 by 8, No. 2 common	21.00	23.00	24.50	21.00
2 by 10, No. 2 common	21.50	23.50	25.00	21.50
2 by 12, No. 2 common	23.50	25.00	26.50	23.50

[1] For 2-inch stock ordered kiln dried, add $2.
[2] For lengths over 24 feet add $1 for each 2 feet up to and including 32 feet.

Car siding, lining, and roofing worked to M. C. B. pattern, random lengths.[1]

	5 feet.	8 feet.	9 feet.	10 feet.	12 feet.	Lining.
1 by 4 B and better	$36.00	$35.00	$39.00	$38.00	$37.00	$34.00
1 by 6 B and better	36.00	35.00	39.00	38.00	37.00	36.50
1 by 4 No. 1 common	31.00	30.00	34.00	33.00	32.00	32.50
1 by 6 No. 1 common	31.00	30.00	34.00	33.00	32.00	33.00
1 by 4 No. 2 common	27.50	27.50	27.50	27.50	27.50	24.50
1 by 6 No. 2 common	27.50	27.50	27.50	27.50	27.50	25.50

[1] In car lining for specified lengths add $1 a thousand feet.

Standard grade car decking.

2 by 6 and 8 inches, 9, 10, 18, and 20 feet, dressed to 1¾ inches	$29.00
2½ by 6 and 8 inches, 9, 10, 18, and 20 feet, dressed to 2¼ inches	30.00
3 by 6 and 8 inches, 9, 10, 19, and 20 feet, dressed to 2¾ inches	30.00

No. 1 common car decking,[1] dressed and matched or ship lapped to M. C. B. pattern.

	9 feet.	9 feet 6 inches.	10 feet.
2 by 6 and 8 inches	$26.00	$27.50	$26.00
2 by 10 inches	28.50	30.00	28.50
2½ by 6 and 8 inches	27.00	28.50	27.00
2½ by 10 inches	31.00	32.50	31.00
3 by 6 and 8 inches	26.00	27.50	26.00
3 by 10 inches	30.00	31.50	30.00

[1] For heart face decking, 6 and 8 inches, add $3; for 10 inches add $4.

Car Framing.

Longleaf square and sound grades S4S to ¼ inch scant and cut to length.

Up to 8 inches, 20 feet and under	$29.00
10 inches, 20 feet and under	32.00
12 inches, 20 feet and under	34.00
14 inches, 20 feet and under	39.00

Car Sills.

For price on car sills use timber list.

Rough plank and timbers No. 1 common cut to full size.[1]

	10 to 20 feet.	22 and 24 feet.	26 feet.	28 feet.	30 feet.	32 feet.
2 by 2	$27.00	$28.00	$29.00	$30.00	$31.00	$32.00
2 by 3	26.00	27.00	28.00	29.00	30.00	31.00
2 by 4	26.00	27.00	28.00	29.00	30.00	31.00
2 by 6	25.00	26.00	27.00	28.00	29.00	30.00
2 by 8	25.00	26.00	27.00	28.00	29.00	30.00
2 by 10	29.00	30.00	31.00	32.00	33.00	34.00
2 by 12	31.00	32.00	33.00	34.00	35.00	36.00
3 by 4 to 4 by 4	25.00	26.00	27.00	28.00	29.00	30.00
3 by 6 to 8 by 8	24.00	25.00	26.00	27.00	28.00	29.00
3 by 10 to 4 by 10	28.00	29.00	30.00	31.00	32.00	33.00
5 by 10 to 10 by 10	27.00	28.00	29.00	30.00	31.00	32.00
3 by 12 to 5 by 12	30.00	31.00	32.00	33.00	34.00	35.00
6 by 12 to 12 by 12	29.00	30.00	31.00	32.00	33.00	34.00
3 by 12 to 5 by 14[2]	35.00	36.00	37.00	38.00	39.00	40.00
6 by 14 to 8 by 14[2]	34.50	35.50	36.50	37.50	38.50	39.50
10 by 14 to 14 by 14[2]	34.00	35.00	36.00	37.00	38.00	39.00

[1] For timbers over 32 feet add $1 for each additional foot in length over 32 feet.
[2] For timbers over 14 inches in width, add $3 for each 2 inches or fraction thereof.

General Exceptions.

Add to foregoing prices per 1,000 feet, B. M.	Amount to be added.
In No. 1 common plank and timbers for longleaf	$2.00
Add to No. 1 common longleaf for following grades:	
For sound and square edge	1.00
For Standard Interstate Rules, 1905, same as No. 1 common longleaf.	
For merchantable, 1905, 10-inch and under	3.00
For merchantable, 1905, 12-inch and under	2.00
For Prime Interstate Rules, 1905	5.00
For 85 to 90 per cent cubical contents, 12-inch and under	3.00
For 85 to 90 per cent cubical contents, 14-inch and under	3.50
For 85 to 90 per cent cubical contents, 16-inch and under	4.50
For heart face, 1 face only, 12-inch and under	4.50
For heart face, 1 face only, 14-inch and under	5.00
For heart face, 1 face only, 16-inch and under	6.00
For 75 per cent heart girth measurement, 12-inch and under	3.50
For 75 per cent heart girth measurement, 14-inch and under	4.50
For 75 per cent heart girth measurement, 16-inch and under	5.50
For standard heart grade, 12-inch and under	4.00
For standard heart grade, 14-inch and under	5.50
For standard heart grade, 16-inch and under	6.50
For 85 to 90 per cent facial area heart, 12-inch and under	5.00
For 85 to 90 per cent facial area heart, 14-inch and under	5.50
For 85 to 90 per cent facial area heart, 16-inch and under	6.50
For all heart, 12-inch and under	7.00
For all heart, 14-inch and under	8.00
For all heart, 16-inch and under	10.00

For surfacing add—	S1S or 2S.	S1S1E.	S4S.	S2S and tongued and grooved.	Grooved for splines.
For 1-inch or less	$0.50	$0.50	$1.00	$1.00	.....
For 2-inch or less	.....	.50	1.00	1.50	$4.00
For 3-inch or less	1.00	1.00	1.00	2.00	4.00
For 4-inch or less	1.00	1.00	1.00	2.00	4.00
For 5-inch or less	1.00	1.00	1.00	2.00	6.00
For 6-inch or larger	1.00	1.00	1.00	.....	6.00

Invoices shall be based on actual board foot contents of the rough size and length ordered, except that thickness under 1 inch shall be based on 1 inch.

When stock is ordered cut to an odd length, a sufficient amount should be added to price of next longer even length to cover waste in cutting to odd lengths.

Pieces ordered larger at one end than at the other, or wider on one side than on the other, shall be computed as of the larger end or wider side.

All sizes which include fractions under one-half inch shall take the same price as the next lower inch listed. Sizes which include fractions one-half inch or over shall take the same price as the next higher inch listed. Example: $5\frac{1}{4}$ by $8\frac{3}{4}$ would take the price of 5 inches by 10 inches. Add $1 to list when ordered to cut on fractional size.

Lengths which include odd inches shall take the same base price as the next longer length listed, with allowance for odd lengths added. (See General Exceptions.) Example: $4\frac{1}{2}$ by $8\frac{3}{4}$, 28 feet 6 inches would take the base price of 4 by 10, 30 feet, to which would be added the allowance for odd lengths.

LONGLEAF AND SHORTLEAF PINE.

June 28, 1918.

MAXIMUM MILL BASE PRICES FOR LONGLEAF AND SHORTLEAF PINE LUMBER PRODUCED IN THE STATES OF VIRGINIA AND NORTH AND SOUTH CAROLINA.

"Prices of all long and short leaf pine lumber in the States of Virginia and North and South Carolina shall not exceed the item prices named on attached list. These prices are for long and short leaf pine lumber delivered (freight allowed) to Norfolk, Richmond, and other Virginia gateways. For shipments to destination points north of and beyond these gateways these prices are for such portion of freight allowed to destination points as will equal shipments originating in above gateways. For shipments to destination points south of these gateways the f. o. b. cars-mill or f. o. b. vessel-rail-mill prices shall be $2.50 per thousand less on each item than prices named on attached list. * * * [1]

Contracts for the sale of lumber entered into in good faith prior to midnight, June 28, 1918, and enforceable at law, will be performed in accordance with their terms, subject, of course, to orders received from the Government, which may require priority." [2]

Effective June 28 to and including September 28, 1918:

	No. 1.	No. 2.	No. 3.	No. 4.	Cull.
1 by 3 and $3\frac{1}{2}$ inch flooring	$43.00	$41.00	$36.50	$32.00	.....
1 by 4 and $4\frac{1}{2}$ inch flooring	42.00	40.00	36.50	32.00	.....
1 by 5 and $5\frac{1}{2}$ inch flooring	.....	.....	37.00	33.50	.....
1 by 6 inch flooring	.....	.....	37.50	34.50	.....
1 by $2\frac{1}{2}$ to $5\frac{1}{2}$ inch flooring	.....	.....	36.00	32.00	$20.00
$1\frac{1}{4}$ by $2\frac{1}{2}$ and 3 inch flooring	47.00	45.00	37.50	32.00	.....
$1\frac{1}{4}$ by $3\frac{1}{2}$ and 4 inch flooring	47.00	45.00	37.50	32.00	.....
$\frac{3}{8}$ by $2\frac{1}{2}$ to $3\frac{1}{2}$ inch ceiling	27.50	26.00	24.00	21.00	.....
$\frac{7}{16}$ by $2\frac{1}{2}$ to $3\frac{1}{2}$ inch ceiling	29.00	27.50	25.50	22.50	.....
$\frac{1}{2}$ by $2\frac{1}{2}$ to $3\frac{1}{2}$ inch ceiling	31.50	30.00	28.50	24.00	.....
$\frac{5}{8}$ by $2\frac{1}{2}$ to $3\frac{1}{2}$ inch ceiling	34.00	32.50	30.00	26.00	.....
$\frac{3}{4}$ and $\frac{13}{16}$ by $2\frac{1}{2}$ to $3\frac{1}{2}$ inch ceiling	43.00	41.00	.....	.....	.....
$\frac{13}{16}$ by $2\frac{1}{2}$ and 3 inch partition	43.00	41.00	37.00	.....	.....
$\frac{13}{16}$ by $3\frac{1}{2}$, 4, and $4\frac{1}{2}$ inch partition	44.00	42.00	27.50	.....	.....
$\frac{13}{16}$ by 5 and $5\frac{1}{2}$ inch partition	46.00	44.00	38.00	.....	.....
1 by 6 inch drop or O. G. siding	45.00	42.00	37.50	34.50	.....
Bevel siding from 1-inch stock	30.00	28.00	26.00	22.00	.....
Bevel siding from $1\frac{1}{4}$-inch stock	32.00	30.00	28.00	24.00	.....

Add $1 per 1,000 feet for specified lengths.

[1] The price-fixing agreement carried with it the same general rules as to prices on items not covered by this list and as to procedure for manufacture as were applied to southern yellow pine. See pp. — to —.

[2] Official Bulletin, July 5, 1918.

Finish S2S.	No. 1.	No. 2.	No. 3.	No. 4.
1 by 4 to 12 inches, random	$43.50	$41.50	.....	.....
1 by 4 inches, random	43.50	41.50	.....	.....
1 by 6 inches, random	44.50	42.50	.....	.....
1 by 8 inches, random	45.50	43.50	.....	.....
1 by 10 inches, random	46.00	44.00	.....	.....
1 by 12 inches, random	47.50	45.50	.....	.....
5/4 by 3 to 12 inches, random	47.50	45.50	$39.00	$34.50
5/4 by 6 inches, random	48.50	46.50	39.00	35.00
5/4 by 8 inches, random	49.50	47.50	39.00	35.00
6/4 by 10 inches, random	50.00	48.00	39.00	36.00
5/4 by 12 inches, random	51.50	49.50	42.00	37.50
6/4 by 4 to 12 inches, random	48.50	46.50	41.00	35.00
6/4 by 6 inches, random	49.50	47.50	41.00	35.50
6/4 by 8 inches, random	50.50	48.50	41.00	35.50
6/4 by 10 inches, random	51.00	49.00	41.00	36.50
6/4 by 12 inches, random	54.50	52.50	44.00	38.50
8/4 by 4 to 12 inches, random	42.50	47.50	41.00	.....
8/4 by 6 inches, random	50.50	48.50	41.00	.....
8/4 by 8 inches, random	51.50	49.50	41.00	.....
8/4 by 10 inches, random	52.00	50.00	41.00	.....
8/4 by 12 inches, random	53.50	51.50	44.00	.....
Molded casing and base:				
From 1 by 4, 6, and 8 inch stock	50.00	47.00	.....	.....
From 1 by 5 and 10 inch stock	52.00	49.00	.....	.....
Jambs from 4/4-inch stock	50.00	47.00	.....	.....
Jambs from 5/4, 6/4, and 8/4 inch stock	53.00	50.00	.....	.....

The above prices are for S2S finish; for S4S add 50 cents per thousand feet.
For specified lengths, add $1 per thousand feet; for rough, deduct 50 cents per thousand feet.
Moldings: 1⅝ inches width and smaller, 52 per cent discount; 1¾ inches and wider, 47 per cent discount

Boards.

	1 by 3.	1 by 4.	1 by 6.	1 by 8.	1 by 10.	1 by 12.	1 by 4 to 12.
No. 3, S1 or 2S	$36.00	$36.00	$37.00	$37.00	$37.00	$40.00	$37.00
No. 4, S1 or 2S	31.50	31.50	34.00	34.00	35.00	36.50	33.50
Culls and red hearts	.....	.....	.....	28.50	28.50	29.00	28.00
Dunnage	.....	.....	.....	.....	.....	.....	20.50
Nos. 1 and 2 bark strips and miscuts, S1 or 2S	.....	.....	.....	.....	.....	.....	34.00
Nos. 3 and 4 bark strips and miscuts, S1 or 2S	.....	.....	.....	.....	.....	.....	24.00

For 1-inch No. 3 and No. 4 in specified lengths add 50 cents, except 16-foot add $1; rough, 50 cents less than S2S; S4S, D. and M., or shiplap, add 50 cents to S2S prices. For resawing, add $1 per thousand.
No. 1 and No. 2 bark strips, when worked to partition, add to above S2S price $2 per thousand feet; boards, when ordered kiln-dried, add $1 per thousand feet.

Dimensions.

	10, 12, 14, and 16 feet.	18 and 20 feet.	22 and 24 feet.	Random.
2 by 2, S1S1E	$31.00	$33.00	$34.50	$30.50
2 by 3, S1S1E	29.50	30.50	32.00	29.00
3 by 4, S1S1E	30.00	32.00	33.50	29.50
2 by 6, S1S1E	28.50	29.50	31.00	28.00
2 by 8, S1S1E	29.50	31.50	33.00	29.00
2 by 10, S1S1E	30.00	32.00	33.50	29.50
2 by 12, S1S1E	32.00	33.50	35.00	31.50

Dimension when ordered kiln-dried, add $2 per thousand feet.
Dimension D. and M., or shiplap, add $1 per thousand to S1S1E prices; rough, 50 cents less than S1S1E prices; S4S, add 50 cents per thousand to S1S1E prices; for dimension over 24 feet, add $1 for each 2 feet up to 32 feet.
NOTE.—All lumber not over 2 inches thick when ordered in odd or fractional lengths will be invoiced as of next longer length in multiples of 2 feet.

Timbers.

	10 to 20 feet.	22 and 24 feet.	26 feet.	28 feet.	30 feet.	32 feet.
3 by 4 and 4 by 4	$33.00	$34.00	$35.00	$36.00	$37.00	$38.00
3 by 6 to 8 by 8	32.00	33.00	34.00	35.00	36.00	37.00
3 by 10 to 4 by 10	36.00	37.00	38.00	39.00	40.00	41.00
5 by 10 to 10 by 10	35.00	36.00	37.00	38.00	39.00	40.00
3 by 12 to 5 by 12	38.00	39.00	40.00	41.00	42.00	43.00
6 by 12 to 12 by 12	37.00	38.00	39.00	40.00	41.00	42.00
3 by 14 to 5 by 14	43.00	44.00	45.00	45.00	47.00	48.00
6 by 14 to 8 by 14	42.50	43.50	44.50	45.00	46.50	47.50
10 by 14 to 14 by 14	42.00	43.00	44.00	45.00	46.00	47.00

Add for timbers over 14 inches $3 for each 2 inches over 14 inches.
Add for timbers over 32 feet $1 for each foot over 32 feet.
Prices above are for shortleaf dimension, rough. For better qualities and various working apply the following differentials: For longleaf No. 1 common add $2 per 1,000 feet: for merchantable, 10 inches and smaller, add $3 per 1,000 to No. 1 longleaf price; for merchantable, 12 inches and larger, add $2 per 1,000 to No. 1 longleaf price; for prime rule of 1905 add $5 to No. 1 longleaf price. Add for dressing $1 per 1,000 feet; add for tongue and groove or shiplap $2 per 1,000 feet; add for grooving $3 per 1,000 to dressed-price stock 3 and 4 inches thick; add for grooving $5 per 1,000 to dressed-price stock 5 inches and thicker; add for beveling and outgauging $2 per 1,000 feet to dressed prices.
NOTE.—All timber when ordered in odd or fractional lengths will invoice as of next longer length a multiple of 2 feet.

DOUGLAS FIR.

June 15, 1918, to January, 15, 1919.

GOVERNMENT MAXIMUM F. O. B. MILL BASE PRICES.

For Douglas fir lumber, effective midnight June 15, 1918, to midnight September 15, 1918, in accordance with the ruling of the Price Fixing Committee of the War Industries Board, dated June 11, 1918. As ruled by the Price Fixing Committee, War Industries Board, on October 11, 1918, the following maximum prices will remain in effect until midnight January 15, 1919.

Vertical grain flooring.

	No. 1.	No. 2.	No. 3.
1 by 4, 10 to 16 feet	$42.00	$39.00	$33.00
1¼ by 4, 6 to 16 feet	45.50	41.50	35.50

NOTE.—No. 1 and No. 2 vertical grain flooring 1 by 4, 6, 7, 8, and 9 feet, $1 less when in stock; No. 3 vertical grain flooring, $2 less. All 4 and 5 feet, $5 less. Short flooring subject to stock on hand. Specified lengths $2 extra.

Flat grain flooring.

	No. 2 clear and better.	No. 3.
1 by 4, 10 to 16 feet	$29.00	$26.00
1 by 6, 10 to 16 feet	32.00	30.00

All flat grain flooring 6, 7, 8, and 9 feet, $2 less. All 4 and 5 feet, $5 less. Specified lengths, $2 extra.

Ceiling.

	No. 2 clear and better.	No. 3 clear.
⅝ by 4, 10 to 16 feet C. and E. B. or C. and E. V	$28.00	$22.50
1 by 4, 10 to 16 feet C. and E. B. or C. and E. V	29.00	26.00

NOTE.—6 to 9 feet, $2 less; 4 and 5 feet, $5 less. Specified lengths, $2 extra. Fir partition, $5 more than ceiling. For 6-inch ceiling or partition add $3.50 to the price of 4-inch.

Stepping.

1¼, 1½, or 2 inches, 8 to 12 inches wide, 3 to 16 feet vertical grain fir stepping S2S or S2S and nosed, No. 2 clear and better, $50.
NOTE.—14 inches, $2 extra; specified lengths, $2 extra.

Drop siding and rustic.

1 by 6, 10 to 16 feet drop siding and rustic, No. 2 clear and better, $31; No. 3 clear, $28.50.
NOTE.—6 to 9 feet, $3 less; 4 and 5 feet, $5 less. Specified lengths, $2 extra. Orders for drop siding patterns other than No. 105 must include the other grade accumulated in working at grade prices.

Fir finish No. 2 clear and better, 6 to 16 feet long.

	S2S or S4S.	Rough dry.	Rough green.
1 by 4	$39.00	$37.00	$35.00
1 by 6	40.00	38.00	36.00
1 by 5, 8 and 10 inches	41.00	39.00	37.00
1 by 12	43.00	41.00	39.00
1¼ and 1½ by 4 and 6 inches	42.00	40.00	38.00
1¼ and 1½, 5, 8, 10, and 12 inches	44.00	42.00	40.00
2 by 4	39.00	37.00	35.00
2 by 6	40.00	38.00	36.00
2 by 8 and 2 by 10	41.00	39.00	37.00
2 by 12	43.00	41.00	39.00
2½, 3, and 4 inches (green only)			41.00

NOTE.—For each inch in width over 12 inches add $1. Specified lengths, $2 extra. For selected slash grain, add $10. For vertical grain, add $7.
GENERAL NOTE.—Foregoing prices on uppers are based on loading not less than 85 per cent 10 feet and longer; balance shorter, usual lengths, well proportioned.

Fir common boards S1S or shiplap.

1 by 2, 6 to 20 feet, mixed lengths, S1S	$20.00
1 by 3, 6 to 20 feet, mixed lengths, S1S	20.00
1 by 4, 6 to 20 feet, mixed lengths, S1S	18.00
1 by 6, 6 to 20 feet, mixed lengths, S1S or S. L.	18.50
1 by 8, 6 to 20 feet, mixed lengths, S1S or S. L.	18.50
1 by 10, 6 to 20 feet, mixed lengths, S1S or S. L.	19.50
1 by 12, 6 to 20 feet, mixed lengths, S1S	20.00

For selected common add $3; for D. and M. add $1.50; for grooved roofing add $3. Orders for 16, 18, and 20 feet only add $2. Other orders for specified lengths add $1 to above prices. No. 2 common boards and shiplap $3 less when in stock.

Fir common dimension S1S1E.

	6 feet.	8, 12, and 14 feet.	16 feet.	9, 10, 12, and 20 feet.	22 and 24 feet.	26 to 32 feet.
2 by 3 and 2 by 4	$17.50	$18.50	$19.50	$20.50	$21.50	$23.50
2 by 6 and 2 by 8	17.50	18.00	19.00	19.50	20.50	22.00
2 by 10	18.00	19.00	19.50	20.00	21.00	23.00
2 by 12	18.50	19.50	20.00	20.50	21.50	23.50
2 by 14		21.00	21.00	22.00	23.00	25.00
2 by 16		22.00	22.00	23.00	24.00	26.00
2 by 18		24.00	24.00	25.00	26.00	28.00
2 by 20		26.00	26.00	27.00	28.00	30.00

Add 50 cents for every 2 feet over 32 feet long up to 40 feet. For select common add $3. S1E or rough same mill base as dressed. For 2 by 4, 2 by 6, or 2 by 8 D. and M. or shiplap add to S1S1E $1.50. Hemlock permitted in 2 by 4 and 2 by 6.

Fir, common plank and small timbers, S1S1F or S4S.

	8, 12, 14, and 16 feet.	9, 10, 18, and 20 feet.	22 and 24 feet.	26 to 32 feet.
3 by 3 and 3 by 4	$21.00	$21.50	$22.50	$24.50
3 by 6	22.00	22.50	23.50	25.50
3 by 8	22.00	22.50	23.50	25.50
4 by 4, 4 by 6, 4 by 8	22.50	23.50	24.50	26.50
6 by 6 to 8 by 8	22.00	23.00	24.00	26.00
3 by 10 and 3 by 12	23.50	24.50	25.50	27.50
3 by 14	24.00	25.00	26.00	28.00
3 by 16	25.00	26.00	27.00	29.00
3 by 18	27.00	28.00	29.00	31.00
3 by 20	29.00	30.00	31.00	33.00
4 by 10 and 4 by 12	23.50	24.50	25.50	27.50
4 by 14	24.50	25.50	26.50	28.50
4 by 16	25.50	26.50	27.50	29.50
4 by 18	27.00	28.00	29.00	31.00
4 by 20	29.00	30.00	31.00	33.00

Add 50 cents for every 2 feet over 32 feet long up to 40 feet. For selected common add $3. S1E or rough same mill base as dressed.

Fir timbers, single, carload lengths.

	32 feet and under.		34 to 40 feet.	
	Rough.	S1S1E or S4S.	Rough.	S1S1E or S4S.
6 by 10 to 8 by 12	$25.00	$26.00	$27.00	$28.50
6 by 14 to 8 by 14	25.50	27.50	27.50	30.00
6 by 16 to 10 by 16	27.00	29.50	29.00	32.00
6 by 18 to 10 by 18	28.00	31.00	31.00	34.50
6 by 20 to 8 by 20	29.50	32.50	32.50	36.00
6 by 22 to 8 by 22	32.50	36.00	36.50	40.50
6 by 24 to 8 by 24	36.00	40.00	42.00	46.50
10 by 10 to 12 by 12	25.00	26.00	27.00	29.50
10 by 14 to 14 by 14	25.50	28.00	27.50	30.50
10 by 20 to 12 by 20	30.00	33.50	33.00	36.00
10 by 22 to 12 by 22	32.00	35.75	36.00	40.25
10 by 24 to 12 by 24	35.00	39.00	39.50	44.00
12 by 16 to 16 by 16	26.50	30.00	28.50	32.50
12 by 18 to 18 by 18	28.50	32.50	30.50	35.00
14 by 20 to 20 by 20	29.50	34.00	32.50	36.50
14 by 22 to 22 by 22	31.50	36.50	35.50	41.00
14 by 24 to 24 by 24	35.00	40.50	39.50	45.00

Fir timbers requiring two or more cars.

	42 to 44 feet.		46 to 50 feet.		52 to 54 feet.		56 to 60 feet.	
	Rough.	S1S1E or S4S.	Rough.	S1S1E or S4S.	Rough.	S1S1E or S4S.	Rough.	S1S1E or S4S.
6 by 6 to 8 by 12	$29.50	$31.25	$31.75	$33.75	$33.75	$36.00	$36.75	$39.25
6 by 14 to 8 by 14	30.00	32.75	32.25	35.25	34.25	37.50	37.25	40.75
6 by 16 to 10 by 16	31.50	34.75	33.75	37.25	35.75	39.50	38.75	42.75
6 by 18 to 10 by 18	34.00	37.75	37.00	41.00	40.00	44.25	44.50	49.00
6 by 20 to 8 by 20	35.50	39.25	38.50	42.50	41.50	45.75	46.00	50.50
6 by 22 to 8 by 22	39.50	43.75	42.50	47.00	45.50	50.25	50.00	55.00
6 by 24 to 8 by 24	45.00	49.75	48.00	53.00				
10 by 10 to 12 by 12	29.50	32.25	31.75	34.75	33.75	37.00	36.75	40.25
10 by 14 to 14 by 14	30.00	33.25	32.25	35.75	34.25	38.00	37.25	41.25
10 by 20 to 12 by 20	36.00	40.25	39.00	43.50	42.00	46.75	46.50	51.50
10 by 22 to 12 by 22	39.00	43.50	42.00	46.75	45.00	50.00	49.50	54.75
10 by 24 to 12 by 24	42.50	47.25	45.50	50.50	48.50	53.75	53.00	58.50
12 by 16 to 16 by 16	31.00	35.25	33.25	37.75	35.25	40.00	38.25	43.25
12 by 18 to 18 by 18	33.50	38.25	36.50	41.50	39.50	44.75	44.00	49.50
14 by 20 to 20 by 20	35.50	40.75	38.50	44.00	41.50	47.25	46.00	52.00
14 by 22 to 22 by 22	38.50	44.25	41.50	47.50	44.50	50.75	49.00	55.50
14 by 24 to 24 by 24	42.50	48.75	45.50	52.00	48.50	55.25	53.00	60.00

For odd or fractional thicknesses add to next less thickness 50 cents. Odd or fractional length timbers ordered shall be counted as of next longer even length. For odd or fractional widths add to next less width $1. For select common add $3.

For price on lengths longer than 60 feet add $11 per M to f. o. b. mill price as contained in West Coast Price List of May 1, 1915.

Inspection at mill.

Grades in accordance with West Coast Lumberman's Association Grading Rules, Rail A List, issued January 1, 1917.

GOVERNMENT PRICE LIST F. O. B. MILL, COVERING DOUGLAS FIR, FOR RAILROAD AND CAR MATERIAL, AS APPROVED BY DIRECTOR OF LUMBER, OCTOBER 12, 1918.

Crossties:		*Bridge ties, surfaced:*	
6 by 8	$19.00	6 by 8	$20.00
7 by 8	20.00	7 by 8 and 8 by 8	21.00
7 by 9	21.00	7 by 9	22.00

For switch ties add $1.50 per M to crosstie prices.

Bridge stringers.

	Common rough.	Surfaced.	Select common.	Select common, surfaced.
6 by 16 to 10 by 16, 32 and under	$27.00	$29.50	$30.00	$32.50
6 by 18 to 10 by 18, 32 and under	28.00	31.00	31.00	34.00
6 by 20 to 8 by 20, 32 and under	29.50	32.50	32.50	35.50
6 by 22 to 8 by 22, 32 and under	32.50	36.00	35.50	39.00
6 by 24 to 8 by 24, 32 and under	36.00	40.00	39.00	43.00
10 by 20 to 12 by 20, 32 and under	30.00	33.50	33.00	36.50
10 by 22 to 12 by 22, 32 and under	32.00	35.75	35.00	38.75
10 by 24 to 12 by 24, 32 and under	35.00	39.00	38.00	42.00

Weight: Rough, 3,300 pounds; S1S1E or S4S, 3,000 pounds. For odd or fractional thicknesses add to next less thickness 50 cents. Odd or fractional length timbers ordered shall be counted as of next longer even length. For odd or fractional widths add to next less width $1.

NOTE.—Lengths 34 to 40 add regular timber list spread.

Car sills.

	34 feet.	35 to 40 feet.	41 to 45 feet.
Common rough	$29.00	$31.00	$36.00
S4S	31.00	33.50	38.50

NOTE.—For select common add $3 per M.

Standard car decking and end lining (surfaced).

	Common.	Select common.	No. 2 clear and better, F.G.K.D.	No. 2 clear and better, V.G.K.D.
2 by 6 to 2 by 10	$21.00	$24.00	$41.00	$48.00
2¼ inches and thicker			44.00	51.00

$1.50 less for rough stock.

Standard car framing: Facia and running board.

	Rough.		Surfaced.	
	Common.	Select common.	Common.	Select common.
2 by 12 and smaller, ¼ inch surfacing	$24.00	$27.00	$26.00	$29.00
Larger sizes, ½ inch surfacing	26.00	29.00	28.00	31.00

Insulation.—⅜ by 4 and ⅜ by 6, 4 feet to 20 feet, No. 1 common, $15.50; select common, $17.50.

NOTE.—Surface measurement.

Standard car siding.

1 by 4, No. 2 and better, V. G., K. D., S1S, S2S, or worked	$44.00
1 by 4, No. 2 and better, F. G., S1S, S2S, or worked	34.00
1 by 6, No. 2 and better, V. G., S1S, S2S, or worked	46.00
1 by 6, No. 2 and better, F. G., S1S, S2S, or worked	35.50

NOTE.—Fractional lengths shall be counted as the next longer odd or even foot in length.

NOTE.—15 per cent of No. 3 grade accumulated in manufacturing $5 per M less.

NOTE.—Rough green stock $4 less, rough dry stock $2 less.

Standard car lining and roofing.

1 by 4, No. 2 and better, S. G., S1S, S2S, or worked, random lengths	$34.00
1 by 4, No. 2 and better, S. G., or worked, specified	36.00
1 by 6, No. 2 and better, S. G., random lengths	35.50
1 by 6, No. 2 and better, S. G., or worked, specified	37.50
1¼ and 1½ by 8, No. 2 and better, S. G., or worked, random lengths	43.00
1¼ and 1½ by 8, No. 2 and better, S. G., or worked, specified	45.00

NOTE.—No. 3 grade accumulated in manufacture at $5 per M less.

NOTE.—Rough green stock $4 less, rough dry stock, $2 less.

NOTE.—V. G. add $9.

Horizontal sheathing (kiln-dried worked).

2 by 4, No. 2 and better, S. G	$42.50
2 by 6, No. 2 and better, S. G	43.50

NOTE.—V. G. add $7.

NOTE.—Rough green stock $4 less, rough dry stock $2 less.

Timbers, boards, dimensions, shiplap and other miscellaneous requirements at prices approved for Government purchases, All grading, surfacing, to be in accordance with West Coast Lumberman's Association Standard Classification Grading and Dressing Rules, January 1, 1917, for general requirements. August 1, 1917, for car material.

NEW ENGLAND SPRUCE.

April 12, 1918, and July 19, 1918.

SPECIAL PRICES ON MERCHANTABLE SPRUCE LUMBER IN ORDERS OF SUBSTANTIAL SIZE, FOR CARLOAD LOT SHIPMENTS, SUBMITTED TO THE UNITED STATES GOVERNMENT BY NEW ENGLAND SPRUCE EMERGENCY BUREAU 131 STATE STREET, BOSTON, MASS., AND APPROVED APRIL 12, 1918.

Sizes.	Lengths (any quantity, any size).	Prices (per M).	Sizes.	Lengths (any quantity, any size).	Prices (per M).
2 by 2	8 to 20 feet	$40	8 by 8	8 to 20 feet	$40
2 by 3, planed 1 edge	do	40	8 by 9	do	45
2 by 4, planed 1 edge	do	40	8 by 10	do	50
2 by 5	do	40	8 by 12	do	52
2 by 6	do	40	1 by 4	do	40
2 by 7	do	40	1 by 5	do	40
2 by 8	do	40	1 by 6	do	40
2 by 9	do	45	1 by 7	do	40
2 by 10	do	50	1 by 8	do	40
2 by 12	do	52	1 by 9	do	45
3 by 4, planed 1 edge	do	40	1 by 10	do	50
3 by 5	do	40	1 by 12	do	55
3 by 6	do	40	1¼ or 1½ by 4	do	40
3 by 7	do	40	1¼ or 1½ by 5	do	40
3 by 8	do	40	1¼ or 1½ by 6	do	40
3 by 9	do	45	1¼ or 1½ by 7	do	40
3 by 10	do	50	1¼ or 1½ by 8	do	40
3 by 12	do	52	1¼ or 1½ by 9	do	45
4 by 4	do	40	1¼ or 1½ by 10	do	50
4 by 5	do	40	1¼ or 1½ by 12	do	55
4 by 6	do	40	2 by 2	Random	35
4 by 7	do	40	2 by 3	do	35
4 by 8	do	40	2 by 4	do	35
4 by 9	do	45	3 by 4 or 4 by 4	do	38
4 by 10	do	50	All other 8 inches and under sizes	do	40
4 by 12	do	52			
5 by 5	do	40	2 by 9	do	43
5 by 6	do	40	2 by 10	do	45
5 by 7	do	40	2 by 12	do	48
5 by 8	do	40	1 by 4	do	40
5 by 9	do	45	1 by 5	do	40
5 by 10	do	50	1 by 6	do	40
5 by 12	do	52	1 by 7	do	40
6 by 6	do	40	1 by 8	do	40
6 by 7	do	40	1 by 9	do	45
6 by 8	do	40	1¼ by 9	do	45
6 by 9	do	45	1½ by 9	do	45
6 by 10	do	50	1 by 10	do	50
6 by 12	do	65	1¼ by 10	do	50
7 by 7	do	40	1½ by 10	do	50
7 by 8	do	40	1 by 12	do	55
7 by 9	do	45	1¼ by 12	do	55
7 by 10	do	50	1½ by 12	do	55
7 by 12	do	52			

MAXIMUM PRICE LIST FOR NEW ENGLAND MERCHANTABLE SPRUCE LUMBER TO COMPLY WITH RULING OF PRICE FIXING COMMITTEE OR THE WAR INDUSTRIES BOARD.

Maximum prices on New England merchantable spruce lumber delivered (freight allowed) to Boston, Mass. They do not include war tax on freight bills. For shipments to other destination points, freight adjustments will be governed by differentials shown in Bangor and Aroostook R. R. lumber tariff on basis of 3,000 pounds weight to 1,000 feet of lumber.

Effective midnight July 19, 1918, to and including November 1, 1918.

Sizes.	Dimension, specified lengths 20 feet and under.		
	Prices.	Sizes.	Prices.
1 by 2 D1S to $\frac{7}{8}$ inch	$48.00	4 by 4	$48.00
1 by 3 D1S to $\frac{7}{8}$ inch	48.00	4 by 5	48.00
1 by 4	48.00	4 by 6	48.00
1 by 5	48.00	4 by 7	48.00
1 by 6	48.00	4 by 8	48.00
1 by 7	48.00	4 by 9	53.00
1 by 8	48.00	4 by 10	58.00
1 by 9	53.00	4 by 12	60.00
1 by 10	58.00	5 by 5	48.00
1 by 12	60.00	5 by 6	48.00
1¼ or 1½ by 4	48.00	5 by 7	48.00
1¼ or 1½ by 5	48.00	5 by 8	48.00
1¼ or 1½ by 6	48.00	5 by 9	53.00
1¼ or 1½ by 7	48.00	5 by 10	58.00
1¼ or 1½ by 8	48.00	5 by 12	60.00
1¼ or 1½ by 9	53.00	6 by 6	48.00
1¼ or 1½ by 10	58.00	6 by 7	48.00
1¼ or 1½ by 12	60.00	6 by 8	48.00
2 by 2	48.00	6 by 9	53.00
2 by 3 D1E to 2⅞ inches	48.00	6 by 10	58.00
2 by 4 D1E to 3⅝ inches	48.00	6 by 12	60.00
2 by 5	48.00	7 by 7	48.00
2 by 6	48.00	7 by 8	48.00
2 by 7	48.00	7 by 9	53.00
2 by 8	48.00	7 by 10	58.00
2 by 9	53.00	7 by 12	60.00
2 by 10	58.00	8 by 8	48.00
2 by 12	60.00	8 by 9	53.00
3 by 4 D1E to 3⅝ inches	48.00	8 by 10	58.00
3 by 5	48.00	8 by 12	60.00
3 by 6	48.00		
3 by 7	48.00		
3 by 8	48.00		
3 by 9	53.00		
3 by 10	58.00		
3 by 12	60.00		

All above prices are for rough lumber unless otherwise specified. Where the fractional part of a foot is specified, the stock is to be figured the next foot in length. For every 2 feet of fraction over 20 feet add $1 per M.

Random lengths.

Sizes.	Prices.	Sizes.	Prices.
1 by 2 DIS to $\frac{7}{8}$ inch	$38.00	2 by 2	$36.50
1 by 3 DIS to $\frac{7}{8}$ inch	38.00	2 by 3 D1E to 2⅞ inch	36.50
1 by 4	42.00	2 by 4 D1E to 3⅝ inch	38.00
1 by 5	42.00	2 by 5	38.00
1 by 6	45.00	2 by 6	38.00
1 by 7	45.00	2 by 7	38.00
1 by 8	45.00	2 by 8	43.00
1 by 9	50.00	2 by 9	45.00
1 by 10	55.00	2 by 10	50.00
1 by 12	59.00	2 by 12	55.00
1¼ or 1½ by 4	45.00	3 by 4 D1E to 4⅝ inch	40.00
1¼ or 1½ by 5	45.00	3 by 9	45.00
1¼ or 1½ by 6	45.00	3 by 10	50.00
1¼ or 1½ by 7	45.00	3 by 12	55.00
1¼ or 1½ by 8	45.00	4 by 4	40.00
1¼ or 1½ by 9	50.00	4 by 9	45.00
1¼ or 1½ by 10	55.00	4 by 10	50.00
1¼ or 1½ by 12	59.00	4 by 12	55.00

All 8-inch and under sizes, random lengths, including timber, not specified above, $43.
All above prices are for rough lumber unless otherwise specified.
For planing 1 side add 50 cents per M.
For planing 2 sides add $1 per M.
For planing 1 or 2 sides and matching or grooving add $1.50 per M; beading extra, 50 cents per M.
For planing 4 sides add $1.50 per M.

1 by 4 to 8, planed one side, random widths and lengths	$41.00
1 by 5 and up, planed and matched, random widths and lengths	43.50
1 by 5 and up, planed and matched, random widths, all even lengths, 10 to 18 feet	47.00
Shiplap, 5, 6, and 7 inch, random lengths	46.00
Shiplap, 8-inch, random lengths	48.00

Prices on items not covered by above list shall be priced on basis of nearest comparable item.
Terms of settlement: One per cent discount for cash within 15 days or 30 days net from date of shipment, eastern merchantable inspection to govern.
All freight rates subject to change up or down according to any changes by railroads in present rates.

Any quantity, any length.

	Per M.
1 by 2 or 1 by 3, planed 1 side, 8 to 20 feet	$40
1 by 2 or 1 by 3, planed, random lengths	35
1 by 4 to 8, planed, random widths and lengths	38
1 by 4 to 8, planed 2 sides, planed 1 or 2 sides and matched, planed, matched, and beaded, or planed 4 sides, random lengths	40

Where the fractional part of a foot is specified, the stock is to be figured the next foot in length.

For every 2 feet or fraction over 20 feet, add $1 per M.

The above prices are quoted with the understanding that the Government will endeavor to give a fair assortment of widths and lengths on their orders and that we should not be called upon to furnish all 8-inch and wider on any job unless we furnish the narrow widths and short lengths needed for the same job.

Any order submitted not in accordance with our interpretation of the above statement, we reserve the right to make additional charge, according to manufacturing and market conditions at that time, for furnishing such schedules. If such charge is not agreeable to the Government cancellation may be made within a reasonable length of time after notification to the Government, say 10 days.

These prices allow the present rate of freight to Boston, Mass. They do not include the 3 per cent tax on freight bills. In adjustment of freight differentials, the Bangor & Aroostook Railroad lumber tariff will govern.

Terms of settlement: One per cent discount for cash 15 days from date of shipment, eastern merchantable inspection to govern.

For deliveries other than Boston add the following arbitraries:

Albany, 75 cents per M feet, via Delaware & Hudson.
Schenectady, 75 cents per M feet, via Delaware & Hudson.
South Boston, $1 per M.
Philadelphia, $3.75.
Wilmington, $3.75.
Newark, $3.75.
Baltimore, $3.75.
Bristol, Pa., $3.75.
Troy, N. Y., 25 cents.
Albany and Schenectady, via New York Central, $1.25 per M.

Add 25 cents per M right through to above prices, occasioned by advance in freight rate of 1 cent per hundredweight, Bangor & Aroostook R. R., supplement No. 7 to I. C. C. No. 1133, effective April 20, 1918.

All prices in the rough unless otherwise specified above.

For planing 1 side, add 50 cents per M.

For planing 2 sides, add $1 per M.

For planing 1, 2 sides and matching or grooving, or grooving and planing 4 sides, add $1.50 per M.

For beading, add 50 cents per M.

PENNSYLVANIA HEMLOCK.

August 15, 1918.

No. 1 sizes:	
2 by 3 inch—	
10-foot (ripped from 2 by 6 inch)	$30.00
12 and 14 foot	30.00
16-foot	32.00
18 and 20 foot	34.50
2 by 4 inch—	
8-foot, L. R	27.00
9-foot, L. R. (when in stock)	31.00
10-foot	29.00
12-foot	29.00
14-foot	29.00
16-foot	32.00
18 and 20 foot	33.50
22 and 24 foot	34.50
2 by 6 to 12 by 12 inch—	
10-foot (when in stock)	29.00
12 and 14 foot	29.00
16-foot	30.50
18 and 20 foot	32.50
22 and 24 foot	34.50
26 and 28 foot	35.50
30 and 32 foot	36.50
34 and 36 foot	38.50
38 and 40 foot	40.50
3 by 4 to 12 by 12 inch, add 50 cents per 1,000 feet to price of 2 by 6 to 12 by 12 inch, same lengths.	
2-inch sizes, No. 2, $2 per 1,000 feet less than same size in No. 1.	
No. 1 boards:	
1 by 6 inch—	
10, 12, and 14 foot	29.00
16-foot	34.00
18 and 20 foot	33.00
1 by 8 inch—	
10, 12, and 14 foot	29.00
16-foot	31.00
18 and 20 foot	32.50
1 by 10 inch—	
10, 12, and 14 foot	30.50
16-foot	34.00
18 and 20 foot	34.00
1 by 12 inch—	
12-foot	33.50
10 and 14 foot	31.00
16-foot	35.00
18 and 20 foot	35.00
5/4 and 6/4, add $2 to price of boards same width.	

No. 2 boards:	
1 by 6 inch, 8 to 18 foot, rough or S1S	$28.00
1 by 8 inch, 8 to 18 foot, rough or S1S	29.00
1 by 10 inch, 8 to 18 foot, rough or S1S	29.50
1 by 12 inch, 8 to 18 foot, rough or S1S	29.50
No. 3 boards:	
1 by 6 to 12 inch, 8 to 18 foot, rough or S1S	25.00
Log-run boards:	
1 by 4 inch, 8 to 16 foot, rough or S1S	25.00
1 by 6 to 12 inch, 8 foot, rough or S1S	26.00
1 by 6 to 12 inch, 10 foot, rough or S1S	29.00
Dressed and matched boards:	
No. 1—	
1 by 4 inch, 8 to 16 foot (25 per cent 10-foot)	30.00
1 by 6 inch, 10 foot	29.00
1 by 6 inch, 10 to 16 foot (25 per cent 10-foot)	32.00
No. 2—	
1 by 6 inch, 8 to 18 foot	29.00
1 by 8 inch, 8 to 18 foot	29.00
Roofing lath:	
1 by 2, 1 by 2½, and 1 by 3 inch, 10 to 16 foot	34.00
Prices for working lumber, per 1,000 feet:	
Saw sized or S1S1E	1.75
Dressing 1 or 2 sides (except L. R. and Nos. 2 and 3 boards)	1.50
Shiplap or matching (except as specified under D. & M. boards)	2.00
Joists worked to flooring, or grooved two edges, or dressed four sides	2.00

Special sizes:
For each inch over 12 inches in width in timber and plank, add 50 cents per 1,000.
5, 7, 9, and 11 inch sawed to order, $1 per 1,000 extra.

CYPRESS AND TUPELO BY THE CYPRESS EMERGENCY BUREAU.

October 25, 1918.

CYPRESS EMERGENCY BUREAU, WASHINGTON, D. C., AND NEW ORLEANS, LA.

Net cypress and tupelo list for Government—f. o. b. mills—mills in North and South Carolina, Georgia, Florida, and Louisiana.

Cypress.

Rough, random width.	Tank.	Factory select.	Shop.	Box.	Peck.
1 inch		$35.00	$29.50	$25.00	$16.00
1¼ inches		40.50	35.50	26.00	18.00
1½ inches	$61.00	43.00	36.50	26.00	18.00
2 inches	67.00	46.00	38.50	26.00	16.00
2½ inches	85.00	57.50	50.50	.....	.....
3 inches	85.50	57.50	50.50	.....	.....
4 inches	94.50	66.50	59.50	.....	.....

For S1S or S2S add $1.50 per M.
1 to 2 inches factory select, shop, box, are for standard lengths. Add $1 per M for each foot over 20 feet.
Prices specified on 1½ and 2 inch tank 8 to 16 feet. For 18 and 20 feet add $4 per M. On 2½ to 4 inches, all grades, add $2 per M for each foot over 16 feet.

Finishing lumber S1S or S2S.	A.	B.	C.	Select common.
1 by 4, 6, 8, and 10 inches, 10/20	$53.00	$47.50	$44.00	$38.50
1 by 12, 10/20	58.50	52.00	51.00	45.50
1 by 4 to 12 inches, R. W., 10/20	53.00	47.50	44.00	38.50
1 by 13 to 19 inches, inclusive, 10/16	67.50	62.00	.....	.....
1 by 14, 10/16	65.00	59.50	.....	.....
1 by 16, 10/16	69.50	64.00	.....	.....
1 by 18, 10/16	74.00	68.50	.....	.....
1 by 20 to 23 inches, inclusive, 10/16	81.00	75.50	.....	.....
1 by 24 and wider, 10/16	94.50	89.00	.....	.....
1¼ by 4, 6, 8, and 10 inches, 10/20	56.50	51.50	47.50	42.50
1¼ by 12, 10/20	62.00	56.00	54.50	49.00
1¼ by 4 to 12 inches, R. W., 10/20	56.50	51.50	47.50	52.50
1¼ by 13 to 19 inches, 10/16	71.00	65.50	.....	.....
1¼ by 14, 10/16	68.50	63.00	.....	.....
1¼ by 16, 10/16	73.00	67.50	.....	.....
1¼ by 18, 10/16	77.50	72.00	.....	.....
1¼ by 20 to 23 inches, inclusive, 10/16	84.50	80.00	.....	.....
1¼ by 24 and wider, 10/16	98.00	92.50	.....	.....
2 by 4, 6, 8, and 10 inches, 10/20	66.50	61.00	53.00	47.50
2/12, 10/20	72.00	65.50	60.00	54.50

Cypress—Continued.

Finishing lumber S1S or S2S.	A.	B.	C.	Select common.
2 by 4 to 12 inches, R. W., 10/20	66.50	61.00	53.00	47.50
2 by 13 to 19 inches, inclusive, 10/16	81.00	75.50	.....	.....
2 by 14, 10/16	78.50	73.00	.....	.....
2 by 16, 10/16	83.00	77.50	.....	.....
2 by 18, 10/16	87.50	82.00	.....	.....
2 by 20 to 23, 10/16	94.50	89.00	.....	.....
2 by 24 and wider, 10/16	108.00	102.50	.....	.....

For 1½ add $1 over price of 1¼.
For rough deduct $1.50 per M: for S4S add 50 cents per M.
For 13 inches and wider, random or specified widths, add $1 per M for each foot over 16 feet.
For 10 to 16 foot lengths in 2½ add $13; for 3 inches add $17; and for 4 inches add $23 to price of 2 inches.
For specified lengths, 1 to 2 inches, add $2 per M; 2½ to 4, add $2 per M for each foot over 16 feet.
Panel stock, ⅜ by 8 inches and wider, S2S to $\frac{7}{32}$ inch, $28; ½ by 8 inches and wider, S2S to $\frac{5}{16}$ inch, $34.50; ⅝ by 8 inches and wider, S2S to $\frac{7}{16}$ inch, $40; ¾ by 8 inches and wider, S2S to $\frac{9}{16}$ inch, $47.
For specified widths of panel stock up to 12 inches add $2.50. Wider than 12 inches and less than 16 inches add $6 per MSM; 16 inches and wider, $9 per MSM.

Flooring, ceiling, drop siding, shiplap, casing, and base.	A.	B.	C.	Select common.
⅜ by 4 or 6 inches, 8/20	$29.00	$26.00	$24.50	.....
½ by 4 or 6 inches, 8/20	36.50	34.00	32.00	.....
⅝ by 4 or 6 inches, 8/20	44.50	42.00	40.00	.....
1 by 3, 8/20	57.00	49.00	45.50	$40 00
1 by 4, 5, 6, and 8 inches, 8/20	56.50	48.50	45.00	39.50
1 by 10, 8/20	.....	.....	.....	39.50
1 by 12, 8/20	.....	.....	.....	46.50

For 1¼ inches add $4; 1½ inches add $5; 2 inches add $15 to price of 1 inch.
For partition add $5 per M.
Short flooring, ceiling, etc., 4 to 8 feet, $4 per M less than standard lengths in same width and grade.

Bevel siding.	A.	B.	C.	D.
½ by 4, 8/20	$27.00	$24.50	$22.50	$16.00
½ by 5, 8/20	27.00	24.50	22.50	19.50
½ by 6, 8/20	28.00	24.50	22.50	17.00

For ½ by 4 or 6, mixed lengths only from inch stock, 4 by 8 feet, B and better, $21.

Bungalow bevel siding.	A.	B.	C and better.	D.
1 by 8, S4S and resawn to ½ S. L	$31.50	$28.00	$27.00	$26.00
1¼ by 8, resawn to ⅝ S. L	40.50	37.00	36.00	35.00
1½ by 8, resawn to ¾ S. L	49.50	44.00	43.00	42.00

For specified lengths add $1.
For 10-inch width add $1.

Common rough.	R. L.	6 and 8.	10	12	14	16	18	20
No. 1:								
1 by 3	$32.50	$30.50	$32.50	$32.50	$32.50	$33.50	$32.50	$32.50
1 by 4	32.50	30.50	32.50	32.50	32.50	33.50	33.50	34.00
1 by 5	32.50	30.50	33.50	34.00	31.00	33.00	34.00	35.00
1 by 6	32.50	30.50	32.50	32.50	32.50	35.00	32.50	32.50
1 by 8	32.50	30.50	32.50	32.50	32.50	32.50	33.50	34.00
1 by 10	32.50	30.50	33.50	34.00	31.50	33.00	34.00	34.50
1 by 12	38.00	36.00	39.50	40.50	37.00	38.00	40.50	42.50
2 by 4	34.00	32.50	34.00	34.00	34.00	35.00	35.00	36.00
2 by 6	34.00	32.50	34.00	34.00	34.00	34.00	34.00	34.00
2 by 8	34.00	32.50	34.00	34.00	34.00	34.00	35.00	36.00
2 by 10	34.00	32.50	35.00	36.00	33.50	34.50	36.00	36.50
2 by 12	39.50	38.00	41.50	42.50	38.50	39.50	42.50	44.00

Cypress—Continued.

Common rough.	B. L.	6 and 8.	10	12	14	16	18	20
No. 2:								
1 by 3	29.00	27.00	29.00	29.00	29.00	31.50	29.00	29.00
1 by 4	28.50	26.50	28.50	28.50	28.50	28.50	29.50	29.50
1 by 5	28.50	26.50	29.50	29.50	29.50	28.50	29.50	30.00
1 by 6	28.50	26.50	28.50	28.50	28.50	31.00	28.50	28.50
1 by 8	28.50	26.50	28.50	28.50	28.50	28.50	29.50	29.50
1 by 10	28.50	26.50	29.50	29.50	28.50	28.50	29.50	30.00
1 by 12	32.50	30.50	33.50	33.50	32.50	32.50	33.50	34.50
2 by 4	30.00	28.50	30.00	30.00	30.00	30.00	31.00	31.00
2 by 6	30.00	28.50	30.00	30.00	30.00	30.00	30.00	30.00
2 by 8	30.00	28.50	30.00	30.00	30.00	30.00	31.00	31.00
2 by 10	30.00	28.50	31.00	31.00	30.00	30.00	31.00	32.00
2 by 12	34.00	32.50	35.00	35.00	34.00	34.00	35.00	36.50

For 1¼ and 1½ add $2 to price of 1 inch.
For S1S or S2S add $1.50 per M feet.
For S4S or S1S and 1E add $2 per M feet.

Timbers (green), rough:	
3 by 4, 4 by 4, 4 by 6, 10/16	$31.50
3 by 6 and 3 by 8, 10/16	32.50
3 by 10 and 3 by 12, 10/16	34.00
6 by 6 and 6 by 8, 10/16	34.00

For 18 and 20 foot add $1 per M.
For S1S or S2S add $1.50 per M.
For S4S or S1S and 1E add $2 per M.
Battens, 10/16, ⅞ by 3 inches S1S, $5; ⅞ by 3 inch O. G., $5.25; 2-inch O. G. finish, 13/16 by 1¾ inches, $6.50; 2½-inch O. G. finish, 13/16 by 2¼ inches, $9.
For 18 and 20 foot battens add 25 cents.
Lath, No. 1, ⅞ by 1½ inches, 4 feet, $4.25; No. 2, ⅞ by 1½ inches, 4 feet, $3.80; No. 1, ⅞ by 1½ inches, 32 inches, $1.80; No. 1, ⅝ by 1½ inches, 4 feet, $7.65.
Byrkit sheathing lath: Long lengths, $19.50; short lengths, $18.50.
All orders must include reasonable percentage of short lengths.

Shingles.

	Best.	Primes.	Economy.	XAX.	Clipper.
3-inch dimension	$3.75	$2.70	.....	.....	.....
4-inch dimension	4.65	3.60	$2.70	.....	$1.95
5-inch dimension	4.90	3.85	3.00	.....	1.95
6-inch dimension	4.90	3.85	3.00	.....	1.95
Random	.....	.....	.....	$2.05	1.80

Tupelo.

Rough:	Standard lengths.
Wagon-box boards, 13 to 17 inches	10.50
Wagon-box boards, 8 to 12 inches	37.00
Firsts and seconds	29.00
No. 1 common	26.00
No. 2 common	23.50
No. 3 common	18.00
Log run No. 3 common and better with firsts and seconds out	23.50
Log run No. 3 common and better with firsts and seconds in	24.25
1 by 3 and wider, 12 to 36 inches, C and better shorts	21.50

Finish, flooring, ceiling, siding, partition, worked.

Finish B and better, 4 to 10 inches, specific widths	$33.50
Finish B and better, 12 inches	38.00
Finish B and better, 4 to 12 inches, assorted widths	34.00
Finish B and better, 13 inches and wider	43.00
Finish C, 4 to 10 inches, specified widths	27.00
Finish, C, 12 inches	31.50
Finish C, 4 to 12 inches, assorted widths	28.00
Flooring and ceiling, B and better	36.00
Flooring and ceiling C	31.50
Partition, B and better	40.50
Partition, C	36.00
Drop siding, C and better	31.50
Bevel siding, B and better	20.00
Bevel siding, C	18.00

For specified lengths, add $1 per M feet to these prices.
When specific prices are not given on worked stock, add the following working charges, stock to be graded before working:
Add $1.50 for each resaw.
Add 50 cents for each rip or crosscut.
Add $3 for each S2S and resaw.
Add $4 for each resawing and S2S afterwards.
Add $2.50 for each making flooring, shiplap, ceiling, grooved roofing, jamb, bevel cribbing, or drop siding.

PRICE BULLETINS ISSUED BY THE WAR INDUSTRIES BOARD

1. Summary.
2. International price comparisons.
3. Government control over prices.
4. Prices of foods.
5. Prices of clothing.
6. Prices of building materials.
7. Prices of chemicals.

FOODS.

8. Prices of feed and forage.
9. Prices of wheat and wheat products.
10. Prices of corn and corn products.
11. Prices of oats, rice, buckwheat, and their products.
12. Prices of barley, hops, rye, and their products.
13. Prices of sugar and related products.
14. Prices of vegetables and truck.
15. Prices of edible vegetable oils.
16. Prices of fruits, nuts, and wine.
17. Prices of spices and condiments.
18. Prices of tea, coffee, and cocoa.
19. Prices of tobacco and tobacco products.
20. Prices of live stock, meats, and fats.
21. Prices of poultry and dairy products.
22. Prices of fish and oysters.

CLOTHING.

23. Prices of cotton and cotton products.
24. Prices of wool and wool products.
25. Prices of silk and silk products.
26. Prices of hides and skins and their products.
27. Prices of hatter's fur and fur felt hats.
28. Prices of hair, bristles, and feathers.
29. Prices of buttons.

RUBBER, PAPER, FIBERS.

30. Prices of rubber and rubber products.
31. Prices of paper.
32. Prices of fibers and fiber products.

METALS.

33. Prices of iron, steel, and their products.
34. Prices of ferroalloys, nonferrous and rare metals.

FUELS.

35. Prices of coal and coke.
36. Prices of petroleum and its products.
37. Prices of matches.

BUILDING MATERIALS.

38. Prices of clay products.
39. Prices of sand and gravel.
40. Prices of quarry products.
41. Prices of cement.
42. Prices of glass.
43. Prices of lumber.
44. Prices of paints and varnishes.

CHEMICALS.

45. Prices of mineral acids.
46. Prices of heavy chemicals.
47. Prices of miscellaneous inorganic chemicals.
48. Prices of fertilizers.
49. Prices of soaps and glycerin.
50. Prices of essential oils, flavoring and perfumery materials.
51. Prices of wood-distillation products, and naval stores.
52. Prices of natural dyestuffs and tanning chemicals.
53. Prices of coal-tar crudes, intermediates, and dyes.
54. Prices of drugs and pharmaceuticals.
55. Prices of proprietary preparations.
56. Prices of explosives.
57. Prices of miscellaneous organic chemicals.

The above bulletins may be obtained at a nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C.